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JUNE, 1884.

"I PLANTED eight Rose bushes, last year," said a lady to me, a few days since, "and only three are alive this spring. They were all Hybrid Perpetuals, and I covered them up some, last fall, with leaves, and put some sticks and stones on to hold them down, but they all blew away, and only three lived out of the eight." Most of the Hybrid Perpetuals, when once well established, or two or three years old, will stand the winter in this region without protection, though the tops may kill back, but the first winter after planting they have not sufficient vigor to endure the severe and protracted cold. Proper covering will save them, but it must be done in a very thorough way, so that the plants shall not be exposed until the covering material is removed in the spring. Any half-way work in covering up in the fall will be thrown away. Probably half of the hardy Roses that are planted every year in the northern part of the country are dead before the following spring, and much of this loss is because they are not well protected during winter. At this time there has been a new planting of Roses. In some cases it has been well done, in some not. The Rose needs a deep, rich and well-drained soil. These conditions must be complied with or it cannot thrive. Those who have planted well will be rewarded with a strong growth

and a fair amount of bloom the first year. The best way to raise Roses is to have a good-sized bed set apart for them where they can have exactly the attention they need. But it is often desirable to have a single plant in a place on the border of the lawn or elsewhere. And here it is we often see the worst errors committed, the plants being set in small holes cut through the sod, scarcely large enough to admit them, and where the grass quickly grows quite up to them and checks their growth. When planted in grass, a hole not less than two feet in diameter should be dug out, and, if possible, some old stable manure dug in, and the soil below made mellow to a depth of eighteen inches. Cut away from the roots of the plant every injured part, and then reduce the top so as not to leave more than four or five buds on the main stem, and three or four on each of the branches. Set the plant so that it shall stand an inch lower than it did before removal, or in the case of budded Roses so that the bud shall be two inches below the surface. It may sometimes be troublesome to set a budded plant deep enough without having the roots too low and beyond the effects of the heat that excites them to action; but the difficulty may be overcome by placing the stock in a slanting position so as to secure the covering of the union and yet keeping

the roots where they will soonest become active. The practice of raising Roses from cuttings is now so general that an idea has obtained a place that budded Roses are quite inferior to those on their own roots, as they are called when raised from cuttings. This is not strange, since some years ago nearly all Hybrid Perpetuals were propagated by budding on the stock of the Manetti, a single wild Rose. This is a strong grower, and quite hardy, and if by chance the budded part should be destroyed the stock immediately sends up its shoots and produces its bloom, much to the dissatisfaction of the cultivator, who, not knowing exactly what has taken place, supposes he has been duped by the nurseryman or the dealer, and has been supplied with a common single Rose instead of the coveted double one he had ordered. When good plants can be obtained on their own roots they are usually to be preferred; budded plants cannot generally prove satisfactory, and if we had been obliged to be confined to this mode of increase, the Rose trade would never have reached the large proportions in this country it has already attained. But there are some very exquisite varieties of Roses that cannot be well raised in any other way than budding; these varieties are lacking in vigor of growth on their own roots, but budded partake, in some degree, of the strength of the stock, and grow and bloom more freely. In the hands of a good gardener budded plants of any kind are valuable.

In ALPHONSE KARR'S *Travels Around My Garden*, (*Voyage autour de mon Jardin*), occurs the following poetical passage about a budded Rose-bush:

"This Rose-bush has been a wild Rose-bush, an Eglantine, which covered itself in some corner of a wood with little single Roses, composed each of five petals. One day some one cut off its head and its arms, then the bark on one of the branches that remained was split. Between the bark and the wood was slipped a little piece of bark from another Rose-bush, upon which was a little bud.

"From that day all its strength, all its sap, all its life were consecrated to the nourishment of this bud. The wound closed, but the scar is visible. The Eglantine has no longer any flowers of his

own, he is a slave working for a superb master. This beautiful tuft of leaves, of flowers, these are not his leaves nor his flowers.

"But, mind! See upon this green stem beneath the graft a bud which commences to show itself. This bud will become a branch; this branch belongs to the wild Rose. O! then nature has resumed her rights, the tyrant above, the beautiful Rose, the cultivated Rose-bush awaits in vain the tribute which has heretofore been paid it; the sap no longer flows to it; it is for this dear branch; there is not any too much for it.

"But the gardener has seen this attempt at rebellion; he has cut down the aspirant, and all is restored to order. Nevertheless, some days after, again the head of the Rose-bush languishes, the royal purple is discolored, the foliage becomes yellow and faded, and yet the stem of the Eglantine is glossy and smooth. Look well, the poor slave is ingenious and obstinate; he has slipped under the soil an offset, and it is at a distance that he has allowed it to see the light. Move two steps, three steps; behind that Gillyflower, in silence and shade, a little Rose-bush springs up. It resembles the one which was its father; like him, it has a flexible stem and straight leaves. Wait a year and it will become an Eglantine. Bruise its foliage, it exhales a Pineapple odor peculiar to one species of Eglantine; thus it was with its father when he had branches and leaves of his own. See it in bud, see it in bloom.

"But the despot we left yonder is dead, and his death was horrible; he is dead of hunger. The revolted slave who bore him has for a long time conducted below the ground all his sap to his well-beloved child. That beautiful crown of double Roses is withered; himself, his slave, is sick and will soon die, for he has kept nothing for himself; but he dies free, he dies revenged. He leaves a young shoot, strong and vigorous, upon which will expand little wild-wood Roses."

This simile is true to the life, but the good cultivator is able to keep the slave at work for him as long as he is profitable. In England the Hybrid Perpetuals especially are usually worked on Brier stocks. But, all things considered, it must be said that generally there is

little occasion to use budded plants; the exceptions to this statement may be confined to the Yellow Roses, the Mosses, and a very few desirable Hybrid Perpetuals. The professional Rose-grower will, of course, avail himself of the advantages the stock affords to obtain superior blooms from any variety that experience has proved possible or desirable.

After the early summer blooming of Hybrid Perpetuals, some attention to pruning is necessary to encourage and regulate the growth for the later bloom. Experience with each variety must guide in this work; the strong-growers may have a part of each of the side shoots removed and the head shortened in, while the weak-growers should have only the terminal bud on each shoot taken out. This is the reverse of the general principle that should govern in the spring pruning, when the plants are quite dormant; then the weak-growing varieties should be most severely pruned, and the strong ones the least so. Some varieties of Hybrid Perpetuals have the habit of throwing up young shoots from their roots after the first bloom; if these are encouraged they will give fine flowers in autumn, and this may be done by cutting partly through the old plant and bending it toward the ground and fastening it there by means of stakes or pegs; after a few weeks it can be cut entirely away and the check to the plant will be less than if done at once. Strong-growing varieties, after the first blooming, can have their shoots bent to the ground and fastened there; this will cause the new growth of the side shoots from them to be more numerous and to bloom more freely.

The habit of autumn-blooming is possessed by some varieties much more strongly than others, and we know of none having this quality in a higher degree than the subject of our present colored plate, the *Comtesse de Serenye*. This habit is characteristic of *La France* and adds greatly to its value, but *Comtesse de Serenye* surpasses it in this respect and blooms in autumn in still greater profusion. What is equally unusual in this Rose is that although blooming freely in spring and autumn, it also carries some flowers all through the summer, especially if a little pains is taken to cut away the flowers as soon as they wither, and not allow the seed vessels to

form. It is fragrant, but in this respect it does not equal *La France* and a few others. Altogether, it is a very desirable variety and worthy of a place even in a small collection.

After the early summer blooming of Roses, they will be greatly benefited by being supplied with manure water to help them make a new growth for later blooming. A dressing of guano, soot, or some good ammoniated fertilizer may be spread over the soil and hoed in with the best effect.

The Rose-grower must be prepared to encounter some insect enemies, and it will usually be found late to commence preparations after they have made their attack. One of the most common insects that infest the Rose is the green-fly, known to all plant growers. Tobacco water applied with a syringe or a whisk-broom will destroy it. A compound for this purpose is often used, prepared as follows: Take Tobacco or Tobacco stems at the rate of about four ounces to a gallon of water, and boil for a few minutes, and as it cools stir in four ounces of soft-soap. Quassia chips can be used instead of Tobacco, if preferred, and in this case the water should be strained before mixing the soft-soap, to free the liquid from the chips. Apply with a whisk-broom, and afterwards syringe or sprinkle the bushes with clear water to wash away the dead insects.

The thrips is a small, whitish insect that preys upon the under surface of the leaves, causing them to turn yellowish, and rendering them incapable of properly fulfilling their functions. A solution of whale-oil soap at the rate of a pound of soap to a gallon of water applied to the foliage with a syringe in such a way as to reach the lower surface of the leaves will be found to effectually rid them of the pest. A syringe with a bent nozzle is the best instrument for this use.

Some seasons, and in some places, the rose-bug, or rose-chaffer, is quite destructive. The beetle, in spring, is something more than a quarter of an inch in length; the insects come in swarms and eat the Rose-buds in preference to the leaves, though they do not neglect the latter; they also prey on the foliage of the Grape vine, and the Cherry, Plum and Apple tree. They can be destroyed by the use of Paris green in the same man-

ner as the Potato beetle, but as this remedy would wholly impair the value of the Rose blooms it is preferable to pick them off and destroy them. We believe coal-oil has been found to destroy them, and would advise the use of the mixture that has several times been mentioned in these pages; at this time it may be useful to some to repeat it here: Take one quart of soft-soap and stir it into two gallons of milk, either sweet or sour, and heat until it boils, and then remove from the fire; when cool add one gallon of kerosene oil. Whatever quantity of the mixture be taken for use dilute it with twenty times its bulk of water. Another mixture is, four pounds common brown soap dissolved in one gallon of water, and one gallon of kerosene stirred in. Use by diluting with ten times the amount of water.

The leaf-slug, a little, dark-colored, slimy slug, eats the green portion of the leaf, and leaves nothing but the skeleton; in this way the slugs will, in a short time, wholly destroy a bush. A solution of whale-oil soap will destroy them; possibly the coal-oil mixture will do as well.

We might mention other insect enemies, but our Rose-growing friends, armed with a plant-syringe and whale-oil soap and coal-oil, will find themselves equal to any emergency. If we are in earnest in the matter it will not be difficult to conquer every time, and the result will be worth all the necessary effort.

We need not urge the cultivation of the Rose; it is too securely enshrined in our very hearts to need a word of praise; it has a subtle influence that all acknowledge; it is the highest expression of beauty found among flowers, and we cannot forbear the thought that it is more appropriate to the pure pleasures of a higher sphere of life than to the realm of time and space, with its dark background of sin and sadness.

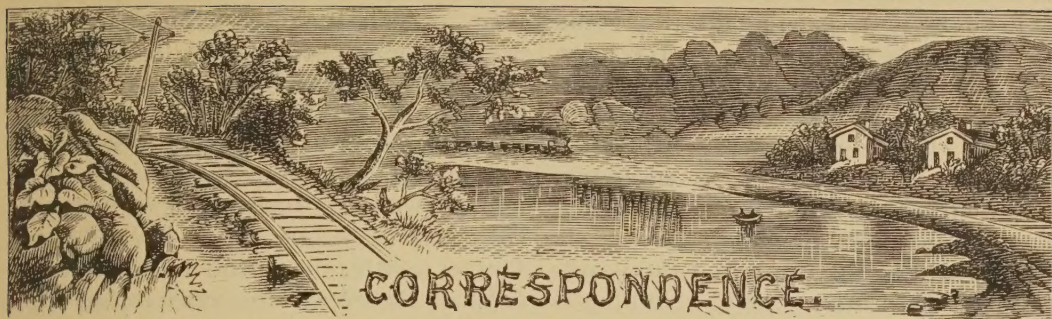
"Heaven's own purest waters
Well might bear the trace
Of thy consummate form, melting to softer grace.

"Will that clime infold thee
With immortal air?
Shall we not behold thee
Bright and deathless there?
In spirit-lustre clothed, transcendently more fair?

"Yes! my fancy sees thee
In that light disclose,
And its dream thus frees thee
From the mist of woes,
Darkening thy earthly bowers, O bridal, royal Rose."

IMPROVING GROUNDS.

Our observations this spring confirm the conclusion arrived at long before, that most people in making important changes on their grounds postpone the necessary preparations until too late, and at planting time have a great anxiety to do something, but without any well arranged plan. A great many valuable old places planted many years ago change hands and come into the possession of parties having means to improve them, and with a desire to do so, but lacking the requisite knowledge to commence and carry out the work in a proper manner. A suburban place of one to five acres, with a handsome modern residence, whose owner is able to improve it, is worthy of more consideration than can be bestowed upon it in a few days at planting time, and by one whose claim to being a gardener is better sustained by his muscle and his presumption than by his brains and training. Yet to persons of this character this work quite frequently falls, and as a result we find on every hand planting so faulty and walks and drives so badly laid as to be absolutely painful to one of taste in such matters. This might be avoided by making preparations in advance. Do you contemplate improving your grounds another year? Begin now to trace, at least mentally, the features you intend it shall bear, or consult some one in whom you have confidence and from whom you may reasonably expect valuable advice in regard to it. You may be sure that thought expended on this subject will be as productive of good as in any line of business operations. By arranging in advance a complete plan of all the changes intended, each part can be done to the best advantage and with the greatest economy. When the work of improvement commences the best ideas in relation to it should have been evolved, and these should be fashioned in the most complete manner. As a people, we have taken only our first lessons in ornamental gardening, and few know how much of beauty and enjoyment is in store for them and their children in the wealth of trees and shrubs and flowering plants at their command if only they possessed the secret of arranging and displaying these treasures of the vegetable world.



ROOT CROPS.—PRIZE ESSAY.

What root crops can be raised with profit for feeding cattle, and how?

Parsnips, Carrots, Turnips, both English and Swedish, and Beets, can all be raised with more or less profit for feeding cattle. To do their best all require deep, rich, mellow soil. For Parsnips and Beets the ground should be well drained, either naturally or artificially. For Carrots, drainage is not so essential, excellent crops being often produced upon damp, undrained soils by late sowing, though always at some risk from superabundant moisture if the season be one of more than average rainfall. Turnips in variety, being sown from June 1st to August 15th or later, when the weather is usually driest, and being least easily injured by wet of any of the root crops, seem still more independent of drainage, though even they may have too much water. In all cases drainage benefits, not only by relieving the land of a superabundance, but by conserving a scanty supply of water.

We will now consider the different species of root crops in the order named above, which may, in a rough way, be also regarded as the order of desirability, beginning with the least profitable, although all have some special points to recommend them.

Parsnips should be sowed as early in spring as the earth will work reasonably dry and mellow. The ground should be plowed deeply, and if the subsoil is not of a friable texture it should be thoroughly loosened by the subsoil plow. On a small scale digging and trenching with the spade make excellent work, but wherever the size of the plat will permit, horse power is much the cheaper. When practicable, this preliminary preparation is best done during the previous fall, a

liberal quantity of well-rotted manure being at the same time worked in. I consider the enriching and loosening of the subsoil to the depth of eighteen to twenty-four inches, or more, quite essential to the best success, as the Parsnip roots will be found to taper more gradually, and, of course, be larger than if these operations be omitted. Some deep, gravelly loam soils, if sufficiently rich, may not require subsoiling, however, and it is upon them that Parsnip raising is most profitable. The ground being plowed, it is to be fined by harrowing, and leveled by planking, or, on a small scale, by raking. A lively team that can be induced to trot would do wonderful execution breaking lumps with a harrow. Good lines for the harness and a steady foot for the driver are necessary; also, care to avoid snags. Trotting upon plowed ground being rather violent exercise for both man and team, should not be long continued without intermission.

Eighteen to twenty-four inches apart is the proper distance for the rows, and seed may be sown quite thickly, say at the rate of five or six pounds to the acre. Since scarcely any seed deteriorates by age more quickly than that of the Parsnip, it should be, like CÆSAR'S wife, above suspicion. I have sowed two and even three-year-old seed, carefully kept, but in no case with as good results as fresh seed. Germination is not the sole test. It may take place under favorable circumstances, and yet the resulting plant be deficient in vitality. As soon as the rows can be traced by the appearance above ground of an occasional plant, a careful man with wheel or other hoe may be set to work to destroy weeds. I have found it a good plan not to go over the whole ground in this way, but simply to outline every row by hoeing a strip a

few inches wide on each side of it, leaving the central strips to be done by horse power. A "Bean cultivator," set narrow, with slim shanks and nearly horizontal blades, which do not disturb the earth much, is a good implement to use with a careful horse and driver. I weed the rows by hand after this cultivation, and thin with hoe and fingers to five or six inches apart in the row when the plants are two to four inches high. Nothing is gained by crowding the plants in either direction. To have good roots they must have lusty tops. On a small scale, where all the work must be done by hand, intermediate rows of Lettuce, Radish, or other crop to be removed early, may be sowed, but in what may be called field work these are inadmissible. After-cultivation consists in removing weeds and keeping the surface mellow, both easily done, as the leaves soon cover the ground well.

Insect enemies are the Celery worm, *Papilio asteria*, which are never very numerous, and for which hand picking is the remedy, and another larva whose name I have been unable to learn, which feeds upon the young seed of the Parsnip, spinning a web for protection. It seldom attacks Parsnips the first year unless neglected seed-bearing plants stand near. Paris green, or pyrethrum, applied to these would probably be effectual to prevent its invading the former. It never troubled me but once, and then to a slight extent only.

In harvesting all root crops, the best plan is to cut off the tops before digging. The left hand gathers and grasps the leaves while the right hand, armed with a sharp knife, cuts them close to the crown, when they should be thrown in piles. Lively boys make rapid work of it. While upon the subject, I may add that the knife had better be dispensed in topping Beets, a smart twist being sufficient for each one. As Parsnip roots grow wholly under ground, and good ones are eighteen inches to twenty-four long, harvesting them is not easy. The best way is to run a deep furrow close by the row, follow with the subsoil plow, if one has it, and do the rest with spade and hands, one man digging and another pulling. Parsnips dry rapidly when exposed to the air. If harvested in the fall they should be stored in sand for

culinary use; but for cattle they may be kept in pits in the open ground, or in an ordinary root cellar, not too dry, but care must be taken in all cases to prevent heating. Parsnips are often left in the ground all winter, being greatly improved in saccharine quality by frost. I have found Hollow Crown an excellent variety, but there are others equally good. Horses, cattle, sheep and hogs are alike fond of Parsnips. For muscle, fat, milk, wool, and good condition generally, they are unsurpassed by any other root. The yield ranges from one hundred bushels of scraggly roots to six or eight hundred of fine, large, smooth ones, and the cost may range from thirty cents per bushel for the poor roots, down to ten cents, or less for the best. Choose ye!

Carrot seed, being rather slow of germination, I have had the best success by soaking it in scalding water. In fact, I pour upon it boiling water sufficient to float imperfect seeds and other trash, which I immediately skim off and throw away. The water is then immediately drained from the perfect seed, which is dried for sowing by mixing with it loam or plaster. No danger need be apprehended of spoiling good seed in this way. If the ground is properly moist the young plants will make their appearance as soon as the weeds do, if not before, instead of being smothered at birth, as they often are. Carrot seed should not be sowed in dry earth, except, possibly, when rain is imminent, and then it were better to wait until the rain be over. The same remark applies to other seeds pretty generally. Four pounds of seed as sold, if good, is ample for an acre.

The preparation of the ground for Carrots should be as thorough as for Parsnips. Rent of land and cost of cultivation being the same, the profit in raising roots results from a judicious expenditure of manure and labor before the seed is sowed. But all gross, unfermented manures are objectionable unless applied to the soil a sufficient length of time in advance to become decomposed. In this connection it may be added that superphosphate of lime is an excellent dressing for land intended for roots. Two hundred to six hundred pounds may be applied by sowing broadcast and harrowing in.

The time of sowing Carrots, distance

apart for the rows, distance in the rows and general cultivation are the same as for Parsnips. Carrots, however, are more impatient of neglect in the early stage than any other root crop. Until thoroughly established, weeds must not at any time be allowed to crowd them. Neither do the leaves cover the ground as well as those of Parsnips, and therefore weeds have a better chance to start throughout the season. A little attention to the removal of tall weeds well repays the careful cultivator. In thinning Parsnips and Carrots care must be taken to leave no two plants closer together than two inches, as in such case the roots are apt to wind around each other and both be spoiled. The Celery worm is the only enemy of the Carrot here, and it is never very troublesome.

Harvesting, which should be done before very severe frosts in the fall, is conducted as for Parsnips. The remarks made under the head of storing Parsnips apply to all root crops, and need not be repeated.

The Belgian Carrots, white and orange, and the Altringham, all of which grow partly above ground, are extensively raised for stock-feeding; but although they have the decided advantage of being more easily harvested, and the doubtful one of producing a greater bulk, I prefer some of the shorter-growing, finer-fleshed varieties. Long Orange grows but little above ground, and in its darker colored strains has given me great satisfaction. The still shorter varieties I have not tried outside of the garden, but believe that with rich surface soil, closer cultivation, perhaps, than here recommended, and at some saving in deep preparation of the ground, they might prove as profitable as the longer kinds. Yields of a thousand bushels, and even more, are reported, but five hundred or six hundred bushels is probably the average.

Nothing in the way of harvesting is more exhilarating than to see how a good piece of Carrots piles up its red-golden roots. The brown earth freshly turned, the green tops bunched here and there, the scattered workmen, the bright look upon some lad's face as he holds up for admiration an extra large and fine specimen just pulled from its nesting place, are worthy of remembrance. And the cow that will not remember a feed of Carrots

from noonday until night, and even until next morning, and give proof thereof in the pail by a generous flow of milk which will produce the heaviest cream and the yellowest and best flavored butter—why, she deserves not to live.

But, be it remembered by the reader, there is no use trying to raise Carrots with profit unless you have time and inclination to attend to them in season. The Carrot of the garden and the field has its vagabond and poor relations along the roadside and in neglected places, yet it is not itself the weed of the slothful, but the nursling of the diligent.

The remainder of this essay will be given next month.

THE RIVER OF MERCY.

In traveling on the Southern Pacific R. R., from Los Angeles to San Francisco, the average tourist rarely notices the insignificant stream he crosses near Cressey. If he does bestow upon it a modicum of attention, it is only to compare the sluggish, turbid waters with the clear, swift-flowing rivers of his own land. The muddy current loiters between its treeless banks as though loth to contribute its quota to the mighty San Joaquin, wholly unattractive and devoid of interest, and yet this common place stream at an earlier phase of existence bears a charm upon its bosom that draws all nations to it.

The Merced river springs into being on the snowy slopes of the Sierras. The Obelisk or Merced group supplies its fountains, and can be seen from many points in Yosemite. The river flows through the little Yosemite and then through the entire length of the main valley, which should properly be called the Merced valley; but the name, Yosemite, given in 1851, by Dr. BUNNELL, a member of the first exploring party, will, doubtless, never be changed.

Oh, a wonderful stream is the River of Mercy, loveliest of all lovely rivers as it hurries through its mountain fastness! Strangely fascinating in all its varied aspects, whether tumbling headlong over vast cliffs, dashing in foam against the immense boulders, flowing swiftly through the Pine forests, or gliding so peacefully through the Violet-starred meadows that it is often difficult to detect any current. I never saw any other water of such a



beautiful, clear green. There is not the faintest hint of blue in it, and I do not remember of ever noticing a deep tint, except in the Emerald Pool, just above the Vernal Fall, where it approaches the dark hue of the sea; everywhere else it always appears the same lovely, soft, clear green. One afternoon, when riding through the Little Yosemite, with a party returning from Cloud's rest, I saw through the forest a brilliant meadow, some distance before me. I looked at it attentively, thinking, "I don't remember seeing such a meadow as we came up," and was about to speak of it to the others when I discovered at that instant that my meadow was the Merced flowing swiftly along in anticipation of its first great plunge of seven hundred feet.

So much has been written about four of the great cataracts of Yosemite, the fifth is comparatively unknown, being practically inaccessible to tourists, that it has been a matter of great surprise to me to find that the majority of people, not excluding Californians, understand the Vernal and Nevada Falls to be formed by slender tributaries, like the Yosemite or Bridal Veil Creeks. On the contrary, the main Merced makes two leaps over vertical walls a half mile apart, thus creating two waterfalls unequalled for combined height and volume. RICHARDSON, in *Beyond the Mississippi*, says, "In summer, when Bridal Veil and Yosemite dwarf, Vernal still pours its ample torrent, and Nevada is always white as a snow-drift. The Yosemite is height, the Vernal is volume, the Bridal Veil is softness; but the Nevada is height, volume and softness combined."

To me, the Nevada is the most beautiful as well as the grandest of the great cataracts. It possesses a charm surpassing that of the long, swaying column of the Yosemite, or the shimmering foam of the Bridal Veil. It is of singular form, as a jutting ledge near the summit throws off a portion of the water with a most picturesque effect, thus giving rise to the old Indian name, Yowiye, which signifies twisting or squirming. Less than half way down the water strikes another projecting rock, causing an upward movement that is as fascinating as it is remarkable. This fountain-like play in the midst of the great fall is most apparent about the last of May, when the river is at

its height. It is wonderful to watch that foaming torrent from the verandas of "Casa Nevada," the little hotel; to cross the seemingly insecure foot-bridge, and, venturing as near the base of the fall as the drenching spray will permit, to peer through the blinding clouds of vapor at the never ceasing mass of water falling with such a deafening roar, and to catch glimpses of its noble profile while "zig-zagging" up the steep, rocky trail to its summit. But the finest view I had of the Nevada Fall was from a projecting rock at the right of the brink. I watched the river hurrying down the steep incline as if impatient for the leap, and then a strong guide led me to the edge and held me firmly, while I looked down seven hundred feet. A brilliant rainbow spanned the fall, and every fleck of foam sparkled in the sun like diamonds. It is a sight which no description can make realistic to one who has never seen it; but once seen, the marvellous vision can never fade from memory. There is a great crack in this projecting rock, and some day it will, doubtless, share the fate of Table Rock. When it does fall it is to be hoped that adventurers in Yosemite may be as fortunate as the Niagara sight-seers.

The walk down the river from "Casa Nevada" to the Vernal Fall was, to me, a perpetual revelation. I followed the horse trail leading down to the valley, as far as the rustic bridge, which is built over that dazzling, whirling mass of foam, rightly named the Cataract of Diamonds. The current is rapid but smooth until it reaches the bridge. There it strikes the huge boulders with such force that the entire stream seems to be lifted from its bed and whirled into clouds of foaming spray that glitter in the sun, like brilliants. This Cataract of Diamonds forms an exquisite minor detail in the grand panorama of mountains and waterfalls seen from the Glacier Point House, fifteen hundred feet higher on the opposite side of the valley. Just after crossing the bridge a foot-path branches from the trail and winds along by the river, which descends about three hundred feet in half a mile, so the current is very swift, and is continually breaking into cascades and rapids.

The Silver Apron, a huge inclining rock, possessed a strange fascination for

me. Its slanting surface is so smooth the flood pours over it with scarcely a ripple. The guardian of the valley tells an amusing story of an English tourist who was strolling along the river and saw a sequestered nook where the water was comparatively quiet. It was sinful to neglect such a favorable opportunity for a bath, so in he plunged. But he reckoned without his host, for the strong current took him off his feet, rolled him down the Silver Apron at which he clutched vainly, hoping to lessen his accelerated speed, and finally tossed him into the Emerald Pool, whence, with great difficulty, he succeeded in clambering out, as thoroughly bruised and battered a subject of Queen VICTORIA as ever trusted himself to the tender mercies of a mountain stream.

The Emerald Pool is an expansion of the river just above the Vernal Fall. I perched myself on a great gray rock and watched the dark waters, deepened in hue by the shadow of the tall Conifers that crowded the banks. The surface of the pool was in constant motion, and the long heavy swells dashed against the boulders like breakers on the sea shore. It seems almost incredible that these intensely dark waters can be so soon transformed into the whirling masses of white foam that pour over the Vernal Fall. Tourists who prefer the Niagara type generally express great admiration for this fall, because, though only three hundred and fifty feet in height, its increased breadth at the summit suggests to their minds greater volume than the more irregular forms.

The Vernal Fall can be seen from many points in the valley, and is quite accessible; its summit lies but a few rods distant from the horse trail, and is reached by an easy path, involving none of the hazardous scrambles that cannot be avoided by any one who essays to gain the brink of either the Nevada or Yosemite. It is absolutely perilous to attempt to look over the last named falls unattended by a trustworthy guide, as there is no barrier to prevent accidents arising from giddiness. But there are great blocks of granite at the left of the Vernal Fall, which form a natural parapet, and afford perfect safety to visitors who wish to enjoy the view. One can descend through the lovely granite grotto

to the foot of the Vernal Fall by the "Ladders" a short distance from the summit. The "Ladders" are, in reality, two flights of steps, very steep and "shaky," yet safe enough for any one possessing steady nerves.

At its upper end the Yosemite valley branches into three distinct canyons. The Merced flows through the middle of these, and when it adds to its waters the Illilonette, or South Fork, the Tenaya Creek and, later, the Yosemite Creek, beside innumerable smaller streams, its volume is greatly increased though its beauty cannot be enhanced. It is spanned by several bridges, two of which are graceful iron structures. The others are cumbrous wooden affairs, valuable only for their utility.

The Merced abounds in trout, but they seem much shyer than those found in the mountain streams of Southern California. Few fishermen have any "luck," except the Indians, who supply the hotels with fish at the rate of twenty-five cents a pound. I have frequently heard tourists boast when they saw the Indians bring in a fine string of fish, that they could do as well. Upon which the landlord invariably offered to pay them "two bits" for every pound. Occasionally some believer in his own piscatorial skill would wander off with rod and line, but if his breakfast, next morning, depended on the number of fish he caught it is needless to say that he would have a good appetite for lunch.

The forests frequently extend to the river banks, and are made up of many species, coniferous and deciduous trees being everywhere found in proximity. Among the cone-bearing trees, the Yellow Pine, *Pinus ponderosa*, the Incense Cedar, *Libocedrus decurrens*, and the grand Silver Fir, *Picea grandis*, are most frequently seen on the valley floor. There are also noble specimens of the Douglas Spruce, *Abies Douglasii*, and Sugar Pine, *Pinus Lambertiana*, though these trees seem to prefer a higher latitude, and are found in abundance on the slopes and mountains about the valley. On the heights may be found, in addition, Jeffrey's Pine, *Pinus Jeffreyi*, the remarkable Tamarack Pine, *Pinus contorta*, and great forests of the lovely Silver Fir, *Picea amabilis*, the most regularly beautiful Conifera of the Sierras. Many people have an idea that the Sequoia is

found at Yosemite. This is a mistake, for, though the Big Tree, *Sequoia gigantea*, is a habitant of the Sierras, the nearest trees are found at the Mariposa Grove, thirty miles distant, with the exception of some isolated specimens on the Big Oak Flat road; while the Redwood, *Sequoia sempervivens*, is confined exclusively to the coast range.

I never could decide which effect was more pleasing, the stately trees crowning the river's banks and shaking their tassels at their mirrored counterparts, or the broad expanse of verdant meadows gently sloping to the soft green water. My door opened on a veranda overlooking a curve in the river, bordered by one of these quiet meadows. I often sat there on days when I needed rest after some fatiguing trip, never tiring of the lovely view. If I raised my eyes, through the Pines, far down the river loomed the towering front of El Capitan. Or, if I turned my head, there was the mighty Sentinel, with the Sentinel Fall dashing down its side, and in the distance the wonderful outlines of the Cathedral Rocks. In early spring, one of my favorite walks was down this meadow to the old bridge, condemned for vehicles, and used chiefly by the Indians, whose encampment was near by. I used to stroll back and forth, and each breath of the sweet, pine-scented air was a recurring delight, as I watched the trout dart in the clear water, or stooped to pick the fragrant, white Violets; I never saw such a profusion of white Violets before. In many places the grass seems hidden under a dash of snow, just as, in southern California, our great yellow Violet covers the ground with masses of gold. Later in the season the river rose rapidly and overflowed the meadow so that further walks in that direction were out of the question, and when it subsided I had become absorbed in more extended expeditions.

The Merced is a theme of which a true lover of Yosemite never wearies, and it is surprising, when one considers the amount of matter yearly written about the valley, to find how little space is devoted to the stream which performs such marvellous feats. No river that is known to man can equal it in beauty, grandeur, and stupendous scenery, and I cannot but echo the lament of an eastern poet:

"Twin-born with Jordan, Ganges and the Nile!
Thebes and the Pyramids to thee are young.
Oh, had thy waters burst from Britain's isle,
Till now, perchance, they had not flowed unsung."

—ALICE P. ADAMS, *San Gabriel, Cal.*

CURCULIGO RECURVATA.

In reading VICK'S MAGAZINE I have rarely, if ever, seen any allusion in the letters of amateur florists to one house plant which I think very satisfactory, the *Curculigo recurvata*. I do not know to what natural order the plant belongs, but it has a very Palm-like appearance, and is superior to one or two of the common



CURCULIGO RECURVATA.

varieties of that genus, as it appears to be a moderate grower, while they increase in size very slowly. The leaves, which are of a vivid green, are long and plaited, like the leaves of the Palm, and being recurved, as the name indicates, give the plant a very tropical appearance, in fact, they are its chief beauty, as the flower is a very ridiculous little yellow affair, peeping up in the most impossible manner near the root, but a short distance above the surface of the soil. Indeed, their appearance, in comparison with the stately look of the plant, reminds one of the fable of the "Mountain and the Mouse." I do not think the *Curculigo* is generally known or cultivated outside the greenhouse of the florist, yet it is certainly one of the best foliage plants we have, thriving in the dry atmosphere of the house, seeming to bid defiance to heat, dust and insects, only requiring a good soil, a moderate supply of water, a little sunlight and a very little care, for which it will amply and continuously reward its possessor.—L.

THE JASMINE.

There are but few plants that are more beautiful or fragrant than the Jasmines, and I wonder that lovers of choice plants do not cultivate them more in the window garden. The language of the Jasmine is grace, elegance, and the plant and flowers display both of these qualities. The flowers of the Grand Duke, and the Duchess d' Orleans are double, like miniature white Roses, and deliciously fragrant. Fruticans is a free-blooming, yellow variety. Grandiflorum is single, star-shaped, of exquisite fragrance, blooming from October till May, without intermission. A lady friend of the writer has an evening Jasmine, a winter-bloomer, whose flowers close in the day-time and open about eight o'clock every evening. When in bloom the perfume from this shrub, which is over two feet high, is sometimes so great in a close room that the door must be opened. It is not offensive, however, but rather overpowering. All the tiny branches of my friend's plant, even those only half an inch in length, were filled with lovely little white blossoms. I have lately read that *Jasminum gracillimum* is probably the best variety of recent introduction. The other day I read an old Tuscan legend about the Jasmine. It is so pretty I transcribe it:

"An aged pilgrim, on one of his journeys, strayed near a castle garden where many rare and lovely flowers were cultivated. As he sat in the shade eating his frugal lunch, the young man who had made the grounds so beautiful by his taste and skill in gardening, came along. A conversation ensued in which the gardener said, in response to the old man's remark that 'the castle was a noble one and the flowers and grounds were very beautiful,' 'Yes, they are, and it has cost a great deal of money to make them so. I wish I had what all this cost. The Grand Duke's wealth knows no bounds, but I am poor, and though I love a fair maiden, we cannot wed, for she has no money either.' 'My son,' the pilgrim said, 'I have no gold to give thee, but I will give you this slip which I cut from a bed of fragrant flowers in Persia, and perchance, if you make it live, it may bring you gold.' Then the old man bade him farewell, and went his way. The gardener placed the slip in the shade till

sunset, then he planted and watered it, and it grew, and soon filled the garden with its wondrous perfume. The Grand Duke saw its lovely bloom, and asked whence it came. After the gardener had told him the story, the Duke told him not to give a single spray to king, child or dame, saying, 'if he did, he would lose his head.' The next day the man said to himself, 'this is Lina's birthday, and I will cull

Some flowers to deck her hair;
She's neither king, nor child, nor dame,
But only maiden fair,'

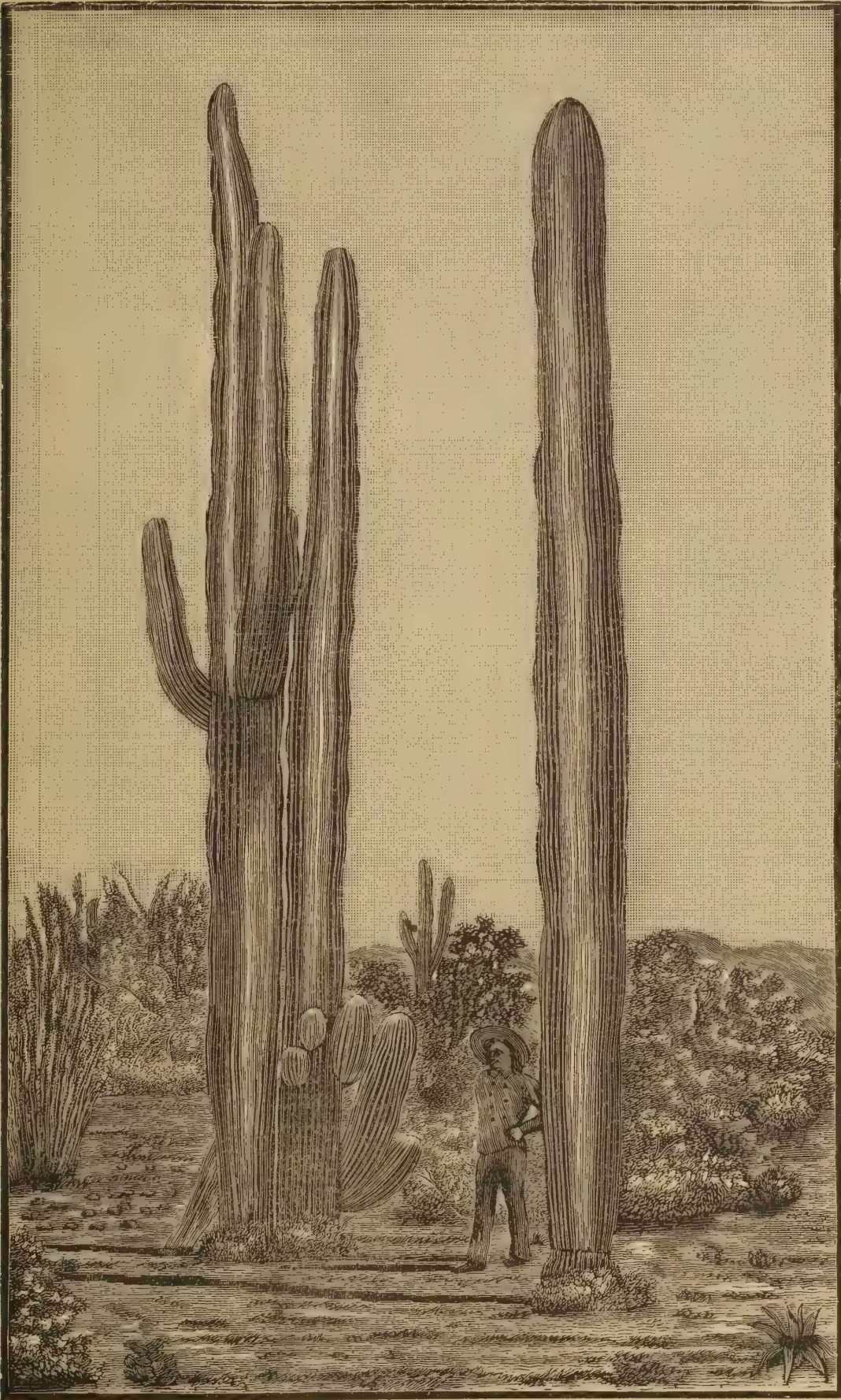
and so he put in a sprig of Jasmine. The maiden planted it and nursed it carefully, till a stranger, seeing the shrub, offered gold enough to tempt her to sell it. The finale is better told in verse.

The flower was sold
And gone; and now the maiden bold,
In happy accents cries,
'My own, my love! Oh, look and see,
I'll be your wife this day!
Look, what the fairies sent to me,
By pilgrim hands, from over sea;
This gold's to be my wedding fee,
For love, for me and you.'
And so, since then, each Tuscan maid,
To prove the legend true,
Wears twined about each glossy braid,
The day that she a wife is made,
A little Jasmine spray."

—MRS. C. G. FURBISH, *Elliot, Maine.*

THE GIANT CACTUS.

The most noticeable plant production of Arizona is its Giant Cactus, *Cereus giganteus*. On her great plains, generally within eight or ten miles of mountains, these great giants of the Cactus family grow. The height of the ones of which I send photograph is about thirty feet; we have been told of some sixty feet in height. In places along the foot of the mountains thousands may be seen, very seldom growing as near together as those in the photograph. They are covered with great thorns, which we presume are nature's protectors. These thorns are exceedingly resinous; by holding a bunch of ignited weeds or grass to these thorns they readily ignite, and the flame will travel up the Cactus as quickly as flames will crawl up a Fir tree from which the rosin exudes. The thorns only burn; we have fired the thorns of other varieties and find they all burn like tinder. Many a poor traveler, almost dead from thirst, has taken an axe or knife and cut into these great Cac-



tus trees, and found water of a bitterish, disagreeable taste, but still water, to sustain life until the stream or well was reached. Birds dig holes in them and there make their nests. The bloom is a crown of white flowers on the extreme top. The fruit they bear is the size of a medium-sized Fig, red in color, and, like the Fig, filled with a great number of small seeds, very much smaller than Fig seeds. The fruit has a pleasant taste, and has a flavor entirely its own; it is gathered with a long pole having a V at the top. Some designate it Arizona shade tree. This Cactus will withstand some frost, as will all the species of the Arizona Cacti. Yuma has the warmest temperature of any place in Arizona, and yet ice forms in vessels in which water stands, occasionally in winter.

—E. A. BONINE, *Pasadena, Cal.*

THE ROSE.

Rose! thou art the sweetest flower
That ever drank the amber shower;
Rose! thou art the fondest child
Of dimpled spring, the wood-nymph wild.

—ANACREON.

An old legend tells us that Flora, having found the body of a beautiful nymph, resolved to immortalize her by transforming her into a plant which should surpass all others in its charms. She summoned Venus and each of the Graces to assist in the ceremony. The Zephyrs cleared the atmosphere to allow Apollo to bless with his beams the new flower; Bacchus contributed nectar to nourish it, and Vertumnus supplied its perfume, while Flora crowned it with a diadem which was to distinguish it as the queen of flowers.

The Rose may truly be called cosmopolite, as it is found in almost every country, and is everywhere equally prized for its delicate perfume and useful properties. Among the ancients it was highly valued, and from the earliest times its virtues and attractions have been appreciated, and its charms have caused it to be interwoven with the history, romance and poetry of all ages.

The Rose tree is supposed to be a native of the east, as the word Syria, signifies "the land of Roses," and one of its richest varieties bears the name of one of the world's oldest cities. Chaplets of Roses were early worn on festive occasions, and Roses contributed largely to the

adornment of the luxurious homes of the Greeks and Romans. The first Rose ever seen is said to have been given by Cupid to Harpocrates, the god of silence, to engage him to preserve the secrets of the amours of his mother, Venus, hence, it became the symbol of silence among the ancients, and was carved on the ceilings of their banqueting halls, and as it was considered a breach of honor to reveal whatever transpired during their convivialities, the expression "sub rosa," was used to denote secrecy. The island of Rhodes received its name, according to some authorities, from the abundance and sweetness of its Roses, and many of its coins, still extant, are said to bear the figure of this flower on the reverse, and now, as in ancient times, the breezes wafted from that fertile isle are scented with delicious perfume. The inhabitants of Sybaris were so effeminate in their habits of life that their couches were formed of the velvet petals of the Rose, and the luxurious Heliogabalus caused Roses to be strewn upon his guests until they formed a carpet many inches thick beneath their feet, and filled the air with their fragrance.

The Rose is the national emblem of England; on the eve of the struggle between the houses of York and Lancaster, a dispute took place in the Temple Gardens, as to the rights of the rival factions; the heads of the factions, the Dukes of Warwick and Somerset, appealed to their friends to take sides in the controversy, but they declined to commit themselves, whereupon Warwick plucked a white Rose and Somerset a red one, each inviting his partisans to follow his example, and the innocent flowers thus became the badges of the contending armies in the romantic "war of the Roses," which ensued. The city of Pæstum, on the coast of Italy, was celebrated for its exquisite Roses, which were further remarkable for blooming twice a year, and even now, when its three beautiful temples have fallen to decay, and only a few scattered stones mark the site of its once noble edifices, here and there a straggling Rose bush is still to be seen surviving the general ruin, and blossoming brightly each May and December, lending a peculiar charm to the deserted city, and it may be partly due to these faithful sentinels which

soften hard outlines, and cover with a living mantle the dull, inanimate stones, that the ruins of this once beautiful city still attract the attention of the tourist and are considered the most beautiful in the world. Unlike many beautiful objects, the Rose possesses a utility which is wonderful. From it is distilled the attar of Roses, which forms an article of commerce in Syria, India and Persia. The manufacture of this essence is attended with so much difficulty and expense that the cost of a single drop is often fabulous; but it is so extremely powerful that a vessel which has once contained even the smallest portion of it will retain the delicious odor many years after the last drop has disappeared. As the poet beautifully expresses it,

"You may break, you may shatter the vase, if you will,
But the scent of the Rose will linger there still."

In pharmacy it is used quite extensively, whole fields of Roses being cultivated for the apothecary's use alone, from which he produces a variety of compounds and extracts, among which are the ointment of Roses, soothing in cases of inflammation; vinegar of Roses, a pleasant and refreshing remedy for headache; conserve of Roses, which was considered by the ancients a sovereign specific for a cold; honey and oil of Roses, beside the many perfumes for the toilet, flavoring extracts and various other compounds, all equally popular and pleasant. The green leaves of the Sweet Brier can be dried and used as a substitute for tea; the fragrant petals of the flower are reduced to a paste and formed into amulets, charms and beads; the rosaries used by some in devotional exercises are supposed to have been made originally in this way, and received their name accordingly.

In its wild state the Rose is always single, the rich and handsome varieties being the result of patient care and diligent culture, and although the full garden Rose may rival its woodland sister in beauty, she can never surpass the wild, sweet fragrance of the Eglantine. The Rose is more intimately acquainted with our daily life than any other flower, and is associated with our most sacred memories; we adorn our gardens and conservatories with the graceful plant, and our houses with the beautiful blossoms; we twine its fairest buds in the bridal

wreath, we lay its purest offspring upon the forms from which life has fled, and we carve a broken bud upon the infant's tomb. It is the lover's tribute, and our morning offering to the invalid, childhood's plaything, and the pride and delight of age. We give its bright, fresh name to our maidens, and love to see its blush upon their cheeks, and listen with pleasure to the requiem of "the last Rose of summer" from their full voices. We cover our arbors and trellises with the climbing Rose, and divide our parterres with Rose hedges. The Rose tree trained about the cottage door tells of a love of the beautiful in the inmates, and the sickly plant, doomed to struggle for life in an earthen pot, cheers and encourages many an occupant of the narrow city attics.

All who are familiar with the touching story of the "Rose of Provence" can realize more than ever the great degree of comfort and pleasure these little ministers of love are capable of giving, especially to those to whom nature is almost a sealed book; deprived of pure air, and debarred from the enjoyment of green fields and flowery meadows, they often cling to a stunted plant with a tenacity which is touching; a Rose is generally the object of their solicitude on account of the gratitude with which it repays the care lavished on it, blooming cheerfully and freely when any other plant would languish and die.—A. R. S.

THE ALPHABET OF ANGELS.

They say that "angels have an alphabet
Of flowers, whereby they write on hill and dale
Mysterious truths," which no one ever yet
Has solved. It may be so; perchance the veil
Is not for mortal eyes to pierce. But those
Whose thoughts are pure and saint-like, evermore
Remind me of a stately, fair white Rose,
Or Lily, in its robe so chaste and pure.
May be the angel language is not mine,
But still around such beings I entwine
Imaginary flowers, which likeliest are
Unto the lives they seem to represent;
Others I liken to some distant star;
Symbolic meaning unto each I've lent.

—LILLA N. CUSHMAN.

THE ROSE is so much prized that its name is applied to many other plants; the Rose of Sharon is the flowering shrub usually known as *Althæa*, *Hibiscus Syriacus*. The Oleander is sometimes called the South Sea Rose.

FROM BULB TO BLOOM.

I took the bulb within my hand;
It dry and withered seemed,
Nor looked like part of that sweet flower,
Which through the spring-time dreamed.

I felt no faintest thrill of life,
As in my palm it lay,
So deemed it dead, and ruthlessly
I threw it far away.

The leaves came down and covered it,
Made sifting dust no sound,
But silently, and soon it lay
Deep buried in the ground.

No faintest gleam of tender shoot,
Of leaflet green or small,
Marked its low place the winter long;
The snow enshrouded all.

But in the spring-time came the winds,
With many a whispered word;
The birds called loud, "Wake up, wake up,"
And soon to life was stirred

The tiny bulb from its long sleep,
It longed for light and air;
The sun unwound its coverlet,
The rains refreshed it there,

'Till chancing by the spot, one day,
I saw a lovely sight;
A Jonquil, fragrant, beautiful,
With cup of waxen white.

O, wondrous bulb! how could I dream
You held such precious dower?
How could, from such a homely thing,
Spring such a lovely flower?

But to life's problems, plants and flowers
Oft hold a solving key;
Now to my mind is that made clear
Which was but mystery.

Within the plainest human forms,
Unseen by mortal eyes,
A soul is hidden, which may bloom
Eternal in the skies.

O, glorious thought! the soul may burst
The dark bars of the tomb;
May see the light of heav'n's own day,
And in God's garden bloom.

—DART FAIRTHORNE.



FOREIGN NOTES.

MARECHAL NIEL ROSE.

How often has one been asked this question, "If you were only to grow one Rose which would it be?"—a question which seems always to me on a par with that of the bashful young man once described by *Mr. Punch*, who in striving to get up a conversation with his partner asked her if her brother liked cheese, and on being told that she had no brother, nothing daunted, again asked, "If you had a brother do you think he would like cheese?"—for I cannot imagine that if any one could grow one Rose he would be contented with that. The reply very often is made, "Oh, of course, Gloire de Dijon," as if it were the most popular Rose; but I think the palm of popularity must be given to the Rose about which I want to say something, Marechal Niel, a Rose in which I have somewhat of a personal interest, for how vividly do I call to mind the morning when at my hotel in Paris, M. EUGENE VERDIER brought me some of his new Roses to see, and when, after showing me some reds and crimsons which have long since faded from memory and from nurserymen's catalogues, he brought out from the bottom of his box a golden goblet which he said he was going to send out under the name of Marechal Niel; how I gazed in astonished rapture at its beauty, and could not help exclaiming, "That Rose, if you manage properly, will make your fortune." He did not manage properly, but sent it out as a bribe to those who would take his other lot; but it has been a mine of wealth to the Rose nurserymen ever since. Whatever other Roses may be left on hand Marechal Niel never is. Tens of thousands of it are raised every year, and are exhibited all over the world. Go into the central avenue at Covent Garden, and you are sure

to find it in abundance, ever meeting with a ready sale, and ever attracting the passers-by by its golden-yellow flowers; and yet there are mysteries connected with it which we can hardly solve. You are told that after a few years it perishes, and hence consequently the demand for it; that it is not an out-of-doors Rose, and that it will not withstand the vicissitudes of our climate; that some winters kill it, or that it smells unhealthily at the junction with the scion; that canker intervenes, and the Rose languishes and dies.

The true position for it is doubtless planted out in a conservatory, where it can be trained overhead, and its golden cups hang down to be looked at in all their beauty and purity, and yet here it too often displays the same capriciousness. About nine or ten years since I gave a plant of it to a neighbor who planted it in a conservatory at the back (it was on a standard Brier), the house being about sixteen feet wide; it grew most rapidly, covered the back wall, and then the entire roof, from whence hundreds of blooms hung in great profusion and beauty; and so it went on for some years. Two years ago it began to show symptoms of goutiness at the junction, and last year it entirely perished. I know, on the other hand, trees which have lived in the same conditions for a much longer time, but I believe the general testimony concerning it is that it is not a long-lived Rose; and that they who wish to continue to grow it should be prepared, after a few years, with a young plant, which may take the place of the old favorite when it begins to decay.

I cannot conclude this brief record of the Marechal without telling a story I heard the other day concerning two brothers whose names are as well known

in the Rose world for their love of the flower, as in their native town for their benevolence and largeness of heart. They were driving out together one day in the neighborhood of M——, when one of them caught sight of a Marechal on a small cottage, the horse was pulled up and one brother went in to look; when he came out he was met with "Why, what an unconscionable time you have been in?" "I never saw such a sight in my life," was the reply. "Gave the woman half-a-crown." This excited the brother's curiosity; he too went in, he lingered and when he came out was met by the same remark. "Ah! well," was the reply, "never did see such a sight. Gave the woman another half-a-crown." Thus does the Marechal win favor, not only from the fashionable frequenters of balls, &c., but from every true lover of beauty and fragrance; that he is ever likely to be displaced from his high position is exceedingly unlikely; it has but one fault, and I do not fancy we are likely to get a Rose equal to him in other respects and more such than he is; he is as yet *facile princeps*.—WILD ROSE, in *Gardeners' Chronicle*.

DOUBLE FLOWERS.

The *Gardener's Magazine* writes of a walk around the garden, and from its notes we cull the following:

"What about double flowers? Some people dote upon them and some despise them, and the botanists repudiate them because they are double, not caring whether they are beautiful or not. The amateur who loves the garden will care nothing for the hard and fast lines of the botanist, but it may be well to wear a concealed breastplate of defence against the promoters of doubling who proceed on the assumption that double flowers are always better than single ones, and will win the smiles of all mankind. Now, the truth is, it all depends. A double white, or red, or yellow, or purple Primrose is a most beautiful thing. It is a perfect rosette, rich, finished in form, and long-lasting. A double Ranunculus is a beautiful thing, a model of symmetry, a delicious example of coloring. A double Rose shall not be extolled here, for the question is, who will dare to say it is not beautiful? But what of a double Snowdrop? What of a double Fuchsia. What

of a double Snapdragon? Yah! That unmeaning utterance is enough in reply to such questions. We say no more, but from this walk round the garden we derive a lesson for the season. It all depends."

TUBEROUS BEGONIAS.

The *Florist and Pomologist* shows a colored plate of new Tuberous Begonias. One of them, Stantead Surprise, is six inches across its spread petals, others are four and five inches. In noticing this plate the above journal remarks: "One of the most remarkable features of modern gardening is the rapid development—improvement, as we florists think—of certain special flowers, which seem at once not only to yield themselves up to the service of mankind, but also to achieve popularity. This development, or improvement, is not confined to one feature, but is alike evident as regards size, form and variety of coloring, three very essential points in estimating the degree of perfection in flowers. The tuberous-rooted Begonias furnish a notable illustration of this fact; so do the Cyclamens, and we might add the Cinerarias, each of which, especially the two former, has undergone very rapid changes within the last five or six years, the changes effected being at the same time unquestionable improvements."

A NEW CONDIMENT.

The *Revue Horticole* states that the little Peaches thinned out before the shells of the pits have formed, can be used for the table in the same manner as Olives. The preparation consists in wiping them and putting them in vinegar, the same as little Cucumbers. Thus treated, these fruits will keep firm for several years, and have a very agreeable flavor. It does not appear doubtful to us, it adds, that Plums, Nectarines, Apricots, &c., may be employed for this purpose and be substituted for Olives.

A COSTLY BOUQUET.—A writer in *The Garden* describes a bouquet he recently saw. "It was composed of Marechal Niel Roses, Lilies of the Valley, white Camellias, Ixora, Spiraea Japonica, Odontoglossum Alexandræ, Dendrobium Wardianum, D. Devonianum, Cattleya trianæ, Phalænopsis Schilleriana and P. Stuartiana. It was valued at four guineas."



PITS AND COAL-OIL HEATING.

I see several persons have given their experience with the Australian seeds you sent them, so I will tell you mine. You sent me six different kinds, and I planted some of all, but I had only three kinds to come up. I shall try again. Those I have are very pretty little plants. I have now (February,) four *Acacia cultriformis*, three *Angophora lanceolata* and one *Stenocarpus salignus*. The *Acacias* are very pretty; they all have two different kinds of leaves on the same plant, which make them very interesting, more so than most plants. The *Angophora* is a nice little vine, at least, mine, which is now about twelve inches high, is vine-like in growth so far, with long and narrow leaves, the main stem of the plant being of a tough, woody nature, and at this time are branching out at every point. The *Stenocarpus* is also very pretty, with its little, short, red body and stiff, dark green, shining leaves; enclosed you will find one leaf of this little pet, and a stem each of the other two plants mentioned above. I, like Mrs. B. B., would like to hear the experience of others with these seeds.

Now, I want to tell you about my *Primulas*. Last summer, I procured two papers of seed, and now I have some very nice plants, forty in all; in the lot there are five red ones, all differently shaded, one variegated red and white, the rest of them all white with yellow eyes, except one, and this is a yellow with a deep white ruffle. I find forty-seven blossoms on one, and twenty-five on another; these are the two largest, and are the single white with fringed edge. Beautiful *Primroses*; I wish you could see them. I have all of them sitting together on one of the shelves of my little greenhouse, and they just make one solid mass of bloom.

Speaking of my greenhouse, let me tell you about that too. I had it made three years ago; I had a pit dug twelve by fourteen feet and six feet deep; this was walled up with bricks, running the brick-work up one foot above the top surface all around. On the wall I had a small house framed for side lights, and a top of glass; on each side there are five sash, with four lights in each sash, of ten by twelve glass; on one end there are three sash, and at the other two sash and a door with steps to go down in the pit. Then, on each side of this pit I have eight shelves, made like steps somewhat, and running from near the center of the house out to the side, the lowest one being three feet above the floor of the pit. The reason I had this pit is that unless the weather is right cold I do not have to keep any heat, as the heat rising from this depth in the ground keeps the place warm; in very cold weather I have to heat.

At first I had lamps, but found they would not do the way I had them arranged. I then got a small

coal stove, which I used for two years, but this was not satisfactory, as in the earlier part of the night it would be too hot, and before day would get too cold, and sometimes the fire would go out and give me trouble, besides having to get up at night to look after it. Now I am using lamps again, but arranged differently from what I had them the first time, and the idea of which I got from your valuable MAGAZINE. There is now a tin pipe running under each side or each set of shelves; there are three lamps to each of these two pipes. The lamps are placed in a square tin case, with a door to put the lamps in at, and close up. This door I had made short, leaving space at the bottom for draft. The top of each box or case is connected with the pipe running under the shelves. At the lowest end of this pipe, which is run a little inclined, I put an elbow with a piece of pipe to reach near the bottom of my pit, the end being open; at the other or highest end I put another elbow, or rather two elbows, and have another pipe running over the shelves, inclined upward; this makes a draft through the pipes, which get warm the whole length and keep my flowers nicely without any trouble, except to fill and trim my lamps, and when I light them I can go to bed knowing they will burn all night, and keep a steady heat all the time.—*Mrs. M. J. RADCLIFFE, Petersburg, Va.*

Being an old subscriber to your valuable MAGAZINE, I will give you my personal experience in building or heating of a small conservatory or pit. Could I, on the 6th, 7th and 8th of January, when the thermometer registered 20°, 22° and 24° below zero, have had some one to impart to me the knowledge I now possess, I would more than have thanked him. As there was no one who could do so, I thought of the old adage about necessity being the mother of invention, and it proved good in my case, as I am going to show.

First my pit is three feet in the ground, walled up with brick. It is eighteen feet by twelve feet, and has a sloping or shed roof, facing southeast; it has alternate glass and plank covering. In this pit I have over two thousand plants, and some are stove and some greenhouse plants, hence the necessity of my becoming an inventor. I looked over the number of your MAGAZINE for January of 1883, where some one recommended pipes with coal-oil lamps. I saw that would be a failure, as it would not give out sufficient heat, or would require too much time for me to have it arranged, seeing my thermometer in the pit at that time stood 10° above freezing, I had not one minute to lose. There stood *Bouvardias*, *Daphne Indica*, *Euphorbia splendens*, every variety of *Begonias*, *Cissus discolor*, all in bloom, but looking sad, and I felt as if I could weep; but turning from them I saw my white or rose-colored *Camellia*,

the queen of them all, looking so beautiful and defiant, I could not help smiling at and petting the lovely thing. I thought of my coal-oil stove, which I use in summer for cooking. I had it brought and placed in the house, fearing when I did so the gas and smoke, but I would try it any how. I turned up the four burners to their full capacity. Just five minutes after I opened the door and looked in; horrors! My house was black with smoke. The best thing was to extinguish all the wicks as quickly as possible, and in five more minutes I decided how it could all be arranged. I sent for a tinsmith, gave him my idea, which was to have a pipe or chimney made to fit over the stove where the baking-oven sits, tapering it up at the top until it measures four inches. Next I had a glass pane removed and a tin one, with a hole for the pipe, put in its place. Having all arranged, I then lighted up all four wicks, and I wish you could have seen my delight and success. Not a particle of smoke, and so little expense and trouble! A small boy or girl can manage it and keep the tenderest plants. One gallon of oil at night is enough and a little less in the day time if there is sunlight. Now, if you think it would be to some one's advantage to know how to preserve their plants with the little coal-oil stove, you can publish my experience, taking or rejecting any part of it that you may deem proper.—MRS. W. M. WATHIN, *Lebanon, Ky.*

The letters above indicate to our readers what many of them already know, viz., that the use of coal-oil in heating small plant structures is still in the experimental stage. While there are different kinds of well devised apparatus for heating large plant houses, either with wood or coal, there are no proper heaters for the use of coal-oil for this purpose. There is no question but coal-oil is an economical fuel, especially for small plant houses in the middle region of the country. The coal-oil stove should be so modified as to be a good heater for pits and small conservatories without passing its fumes into the room.

Again, there should be another modification of it, combining it with a boiler, in order to heat a room by means of hot water passing through pipes. A clever inventor, who understands what is needed could quickly design both styles of apparatus, and the demand for them is an increasing and constant one.

HONESTY.

I am much interested in the plant, Honesty. I have made two unsuccessful attempts to raise it. I sowed seeds of it in the summer, and they failed to come up; again I sowed seeds earlier in the season, and they also failed. Can you give me any information on this subject?—S. E. B., *Papinsville, Mo.*

The seeds should be sown in the fall, and will almost surely germinate in the spring, the young plants making their appearance very early.

CHEILANTHES—PELLÆA.

I send to you, to-day, a specimen of *Cheilanthes Pringlei*, with a copy of *Torrey Club Bulletin*, containing original description and a photograph of the original station, taken by Mr. PRINGLE, last month, in the low mountain tops of the Santa Catalina range, near Tucson range, Arizona. You will see that in this species, which is regarded as a true *Cheilanthes* by Prof. EATON, as well as by myself, that the surface of the frond is absolutely free from hairiness, and that, therefore, it does not accord with the statement in February number, which makes the hairiness of the surface of the frond a "decisive feature" in determining that genus.

This species differs from *C. Californica* in having the sori at the apex instead of at the side or sinus, and in its scaly rachises and stipes; otherwise it resembles that species very much. I think the statement in your February article, referred to, needs some modification.

Technically, I should say that the *Cheilanthes* and *Pellæa* might best be known by the character of their involucre; but there are marked exceptions in *Cheilanthes*, and the limits of the two genera are not yet clearly enough defined. We cannot, however, make the hairiness of the surface a decisive feature, as that is a character common to other genera, and extremely variable, more variable, in fact, in the two genera mentioned than the character of the involucre, so that the latter character combined with texture and habit is the best we now have.

C. Californica and *C. Wrightii* both have smooth fronds. *C. Alabamensis* a very nearly smooth laminae, and *C. microphylla* runs from a smooth to a very pubescent form. The two last were placed in *Cheilanthes* by Dr. HOOKER, who regarded them as possible forms of one species; but Mr. BAKER places *C. Alabamensis* in *Pellæa*, although the two are altogether too closely related to admit of such a separation. With the very marked exception of *P. gracilis*, which you so admirably illustrate, *Pellæa* seems to me more readily distinguished from *Cheilanthes* by the texture of its fronds and more rigid habit than by the presence or absence of hairs. The laminae is generally smooth, but often very pubescent, as in *P. cordata*, *P. flexuosa* and even our *P. atropurpurea* is sometimes so hairy, notably in some Arizona specimens, as to have been mistaken for *P. aspera*. This last was collected in western Texas by Dr. PALMER, in 1879, and received from Dr. YOUNG as late as 1882. Its presence in New Mexico is doubtful, and the statement probably arose from the fact that it was collected by CHAS. WRIGHT during an extended expedition from New Mexico to western Texas, &c., no definite region being given. Still, I know of no good reason why it may not be found in New Mexico and Arizona.

Mr. PRINGLE is now at work in southern Arizona and along the border into Mexico, and I am hoping that he will be able to supply us with this and other rare species.

A letter from Mr. PRINGLE received a day or two ago, gives the low mountain range west of Tucson, Arizona, called the Sierra Tucson, as the locality for *Cheilanthes Pringlei*. The Santa Catalinas are north of that city.—GEO. E. DAVENPORT, *Medford, Mass.*

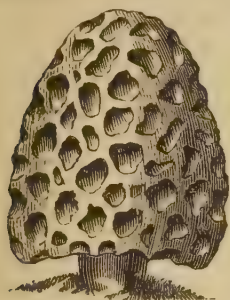
The communication of Mr. DAVENPORT here given, will be read with interest by Fern students. His opinion upon the peculiar characters of the genera *Cheilanthes* and *Pellæa* will be

regarded as of high authority, and we cheerfully recognize its correctness in preference to our own statements, as criticized. Again the lesson is impressed upon us that there are no sharp lines in nature to divide different genera and species, but that they merge into each other by indefinable gradations, and the nature student must seek for trustworthy information less in printed pages than in nature's open book—

"Books in the running brooks,
Sermons in stones."

THE MOREL.

I have sent you, by mail, a very small Mushroom, yet in shape and color it resembles the larger ones; they used to be very plenty about here several years



ago. They were generally found about Poplar or Ash timber. They seem to grow up at no other time of the year than spring, the last of April and during the month of May. We relish them much, and would like to know how to propagate them. If they could be raised like the other kind they would

outsell them ten to one; no one could mistake one of them for some other sort. They become six inches long and three inches in diameter. They grow under my Apple trees in the grass and weeds. I gathered, this morning, over a gallon under one tree.—J. P., Colburn, Ind.

The fungus received with the above letter is the *Morchella esculenta*, commonly called Morel. We have never known it to be cultivated, but this is one of those operations that undoubtedly can be achieved, if it is worth doing. It is probable that in cultivation the period of production may be as short as it is in the wild state, though perhaps not. Some of the surface soil around these Mushrooms will undoubtedly contain the mycelium, or spawn, of the plant, and transferred to other suitable localities would develop the mature plant. It may require some continued experimenting to succeed. The remark that this Mushroom could not be mistaken for any other is quite true, and there would be no danger of mistaking a poisonous kind for it; on this account it would no doubt sell freely if it could be procured in considerable quantity. Its quality, however, is not equal to the favorite Mushroom, *Agaricus campestris*. It can be dried and kept for a time, preserving its flavor.

TUBEROSE—CACTUS—INSECTS.

I have some Tuberose bulbs which are about half an inch in diameter. I have potted them, and intend to set them out in the ground later. What shall I do with them in the fall if they do not bloom this summer?

I have a Balloon Cactus which has several small ones growing at the base. Should these be removed, or may they grow?

Is there any remedy for bugs or lice on Cauliflower?

I send you a leaf from a plant I have had for some time, and which I prize for its beautiful foliage. Will you please tell me its name, and if it ever blossoms?
—LINA, Florence, Mass.

If the Tuberose Bulbs do not bloom this summer, they should be kept over winter in a warm place, and be planted out again next spring.

The small plants at the base of the Cactus may be left where they are, or be taken off, as may be preferred; either course is proper.

Rich soil, good cultivation, resulting in vigorous growth is the best preventive of lice on the Cauliflower; but they can be destroyed by syringing the plants with kerosene prepared as described on page 119 of this volume.

The plant of which the leaf was received is the variegated Japan *Euonymus*. It is an excellent house plant, admired for its beautiful foliage, and not for its small and unattractive flowers, which are seldom produced in this region.

ACHANIA—DAY LILY.

I have an Achania that I have had a year, it was a young plant just coming into bloom when I first obtained it at the greenhouse, and was about three inches tall; it is now two feet tall and does not branch out any, and as it grows the leaves drop off, leaving only a few at the top. Is it the habit of the plant to grow thus? It has been in bloom constantly. In answering one correspondent I noticed you said it did not need a great amount of water, mine has always seemed to require much water.

I had a white Day Lily given to me seven or eight years ago, and it has never bloomed. For three or four years I kept it in a ten-inch flower pot, and in winter I put it in the cellar; for the last three years I have left it in the ground, do not even cover it. It comes up and grows beautifully, but never blooms; it has come up this spring again. The first year I had it I took out one of the young roots and gave it to a friend, a year or so ago hers had never bloomed. What is the reason of it? Several of my neighbors have them, and theirs always bloom.—L. C. B., Chenoa, Ill.

The top of the Achania should be pinched off, which will cause the buds below to break and grow. By pinching the ends of the stem and branches you can shape a plant just as you wish it.

Something may be due to the situation

of the Day Lily that it does not bloom. It will be best to divide the plant and set a portion of it in another place, in an open, sunny spot, where it will receive no shade during any part of the day.

PRONUNCIATION—HERBS.

Will you please inform me, through your MAGAZINE, concerning the following questions, and oblige a new and delighted subscriber? Please give pronunciation of *Amorophallus Rivieri*.

Give description of Resurrection Plant, sometimes called Rose of Jericho. Give author of the piece of poetry concerning this plant.

Will the editor or some one give the use of the different "Useful Herbs." I fancy I should like a bed of sweet and medicinal herbs, if I just knew the use of each. All I am acquainted with in your FLORAL GUIDE are Sage, Saffron, Hoarhound, Catnip and Fennel. If asking for a description of the use of all is too much, I would especially like to know concerning the following: Arnica, Lavender, Rosemary and Tarragon.

There must be some magnetism in your MAGAZINE; this is the first year I ever subscribed for the MONTHLY, and feel much more interest in flowers and vegetables than ever before. The MAGAZINE is the sole cause of this interest.—Mrs. C. V. A., *Corydon, Iowa*.

The pronunciation of the name above mentioned may perhaps be obtained by dividing it into syllables, as follows: *Amor-pho-phal-lus*, with the accent on the last syllable but one, and *ph* having the sound of *f*; the specific name in the same manner would be divided *Ri-vi-e-ri*.

We do not know the poetry referred to concerning the Rose of Jericho.

Arnica is used medicinally, Lavender and Rosemary for their fragrance, and Tarragon in salads, soups and stews and to flavor vinegar for dressing pickles and as a fish sauce. Perhaps some of our readers may send for publication statements of the manner in which they employ the different kinds of pot-herbs.

HEATING A SMALL HOT-HOUSE.

I am thinking about building a small hot-house; as to the most convenient means of supplying artificial heat I have thought of using a small charcoal furnace, such as are used in the summer time for heating flat-irons and sometimes for cooking purposes, without any chimney. Would not the carbonic gas be beneficial to the plants instead of injurious? How would it answer? The attendant might not be healthy. Please answer in MAGAZINE.—H. W. S., *Cincinnati, Ohio*.

Nothing worse for this purpose could be thought of. Procure a small hot-water boiler, or, if the space is quite limited, have a smith make a small copper saddle-boiler, and heat the house with hot-water flowing through iron pipes.

PÆONY AND COLEUS.

Will some of the correspondents of the MAGAZINE tell me why my *Pæonies* spring up and die, and have not bloomed, though I have had them three years. I thought it was because I procured them too far north, and so obtained some more from the south, which are doing the same. My soil is sandy, but enriched with leaf and stable manure.

I am pleased with the MAGAZINE, and wish it success.

Will the *Coleus* that has ornamented the lawn live through the winter? I lost all of my old ones last winter. Mine did not seed, though they were large and beautiful.—S. C. Y., *Greensboro, Ala.*

We hope some of our southern readers who may have had experience with *Pæonies* will answer the above inquiry, if possible.

We think it doubtful if it is ever safe to leave out *Coleus* through the winter in Alabama, though possibly it might survive in an exceptional season.

MAY BEETLES.

In answer to your inquiry in your recent issue, of how to destroy the May beetle, or June bug, I will give you my experience for the past five or six years. In the first place, I save all the trimmings of trees, bushes and litter of every kind which will burn and make a good blaze. I keep it all until the period arrives at which the beetle commences to fly in the evening, as they are nocturnal insects. I then commence building bonfires in several places in the evening, and keep them going for two or three hours for several evenings, making as much blaze and light as possible. The flames and light attract the beetles by hundreds and thousands, and the result is they fly in them and are burned up. At the time I commenced this practice I used to find thousands of beetles in the spring when I worked my fruit patches, but this spring there has been only one beetle discovered which I have heard anything about, and I presume he must have been an immigrant. In company with the beetles there are thousands of moths and millers fly into the flames and are destroyed, all of which, I believe, prey upon vegetation.—J. R. H., *Mountainville, N. Y.*

THE ninth annual session of American Association of Nurserymen, Florists and Seedsmen will be held in the city of Chicago, Illinois, commencing Wednesday, June 18th, and continuing three days.

LEISURE HOUR NOTES.

Poisoning by fungi is much more common than is generally supposed; the countless species of fungus forming a world within our world, hidden as to their growth in the darkness, and only showing what may be called their blossoms to the light, as on the leaves of Grape vines and other vegetable matter, on the face of stale bread, cheese, milk, or other provisions, on the walls or floor of ill-aired cellars or caves, on the soil near the close of summer, or even within the animal frame. The salivary glands are specially affected by most sorts of fungi that enter within our food, including the poisonous sorts of Mushrooms and the molds of bread and cheese. In a day or two after eating these, if advanced to the maturity of spores, we find the taste recurring in the mouth quite perceptibly and persistently, as if the fungus had made a lodgment in the circulation, and was sending out its filamentous mycelia within our body, as it had done in that unlucky piece of cheese or other moldy bite. Sometimes the minutest invisibility will suffice to convey and implant a deleterious germ. The late Dr. BADHAM placed a specimen of *Lactarius vellereus* temporarily upon a plate. It dropped some spores which adhered to the Doctor's finger tips, and from which he became unpleasantly affected. In another case reported in the *Gardener's Chronicle*, a very small portion of *Agaricus fertilis* produced illness. The antidote, according to Piviera, is belladonna, which also affects the salivary glands, but not the stomach or bowels. Another writer states that he found relief when fungus poison caused disturbance of the mouth and throat from a dose of atropin, or tincture of belladonna.

A floating slip advises the manuring of grass ground by using a drill that will cut a line through the sod at about a foot apart, merely for the purpose of dropping a fertilizer two or three inches beneath the surface. A roller to follow to even down any disturbance of the level. Where meadows are liable to overflow with current sufficient to sweep away manure applied on the surface, this would, doubtless, be an excellent means of securing the due effect of applied dressings, but would have no special advantage on

higher ground, beyond that of the partial scarification of the surface and thereby increased aeration of the soil.

Miss ORMEROD, in her admirable essays describing the habits of injurious insects in England, and the means of preventing their ravages, particularly advises the turning up of the soil late in the autumn, or during winter, so as to expose them while in their dormant condition to the frosts and blasts of winter. A correspondent of *Farm and Home* suggests that, as many lie at full furrow depth in the soil, they will not be reached unless by deep plowing, and that whatever may be said against deep plowing in some soils, it is the only way of reaching these deep burrowers of insects.—W.

THE FRUIT PROSPECT.

At the present time, May 16th, the fruit prospect in this region is encouraging. Cherries have bloomed abundantly, and the weather has been favorable to the setting of the fruit, and a few days hence will probably show a full crop set. Peaches are in bloom and showing favorable for a fair crop. Pears are now coming into bloom, and the Apple blossoms are almost ready to open. There has been a plentiful rainfall during the spring, and all the trees appear to be in health and vigor. We have had no Apple crop here for three years, and orchardists have occasion for some anxiety at the present time. It is to be hoped that the successive losses of the Apples may have taught us to appreciate their importance better than we have. We must conquer or control the codlin moth. We must thin the crop where the trees are loaded, and, lastly, the soil of orchards must, in some manner, be kept in a state of fertility. The prospect here at this time of all the small fruits is good, as they have passed through the winter uninjured, and are in fine condition, and give promise of abundance. In many parts of the west most kinds of fruit have been seriously injured by the severe weather of the past winter, even the Strawberries, which usually escape. The Strawberry and the Currant are the most reliable fruits, and can be more generally raised than others in all parts of the country, and should have far more attention than they now receive.

MID-YEAR.

Although most of our subscriptions commence and close with the year, the term of a few expires with this month. There is no occasion for us to urge these patrons to a prompt renewal, for we are confident from past experience that there will be no hesitation on their part to make remittances. But we wish to remind all of our readers that this is a favorable time to say a word or two to some friend who you may believe would be pleased and benefited by our monthly visits, but to whom the MAGAZINE is yet a stranger. A half year's subscription from this time will be a good preparation to start the next year with. Where is the home that might not be made brighter and cheerier by the MAGAZINE, if well read and its ideas carried into practice? The bright flowers, the green lawn, the well-shaped trees, the succulent vegetables, and the delicious fruits would all be silent witnesses of a gentle influence that accompanied their existence. Our MAGAZINE is needed in every home. Please make it known.

Our friends have now also found out the value of *Good Cheer*. Once a month it comes with its pure elevating and instructive literature that is a delight to every member of the family. Let the young people have such matter to read, and the standard authors in our language, and they will never vitiate their tastes, nor possibly blight their lives, by the pernicious trash that is too freely placed within their reach. The MAGAZINE and *Good Cheer* for a year at one dollar and twenty-five cents is an offer that no family can afford to lose.

MAGNOLIAS IN WINTER.

One of the editors of *Revue Horticole* says that on a visit to Cherbourg, last February, he admired at the residence of M. CAVRON, a horticulturist, some magnificent bouquets of Magnolia Yulan, the blooms of which had expanded in the greenhouse. This early blooming is easy to obtain in all climates. It is only necessary to cut, in January or February, some branches and put the ends in a vase of water in a warm greenhouse. In a few days the buds will swell, develop and expand as well as under normal conditions. In the same manner may be bloomed Cherries, Apples, &c.

EXPERIENCE WITH GERANIUMS.

In the May number of your MAGAZINE I notice a communication from W. L. R., Cohoes, N. Y., on "Experience with Geraniums." Certainly W. L. R.'s experience is the exception which proves the rule. I have never been able to do as well with old plants for winter blooming as I have with young ones started about the last of August or first of September; nor can I get Geraniums to bloom at a west window. I am not a doubting Thomas, but if any others from the many readers of the MAGAZINE have like experience with W. L. R., I should like to know it, for it is only by exchanging experiences that we are enlightened.

You will see by the above that I read the MAGAZINE as soon as it arrives.—S. D., Indianapolis, Ind.

THE FIG AT CLEVELAND.

I have a Fig tree which I have stored usually in the cellar in winter. Last fall, I read in your valuable MAGAZINE that a Fig tree bent down to the ground and covered up would not be injured by frost. My Fig tree became very tall and heavy, it measured over five and one-half feet high, and the stem about four inches thick, so, as it was a very unhandy thing to handle, I pegged it down, last fall, and covered it lightly with leaves, then with sod, then with straw, and sod again to the thickness of two and one-half feet. Yesterday, I relieved my Fig tree from its covering, and found it in a very good condition, leaves on every branch ready to burst forth.—O. H., Cleveland, O.

GROWTH OF A TREE STEM.

If I have a tree that is two or three years old, and the point at which the lowest branch starts from the main trunk be two feet, will it rise as the tree grows taller, and, if so about how much? Please answer as soon as convenient.—Mrs. M. L. C., Fort Plain, N. Y.

A tree grows from its top; the stem forms new cells at its extremity, and thus increases in height. A branch will remain at the same height it was formed.

AFTER the Strawberry season, cultivate the soil and remove weeds, and on new beds cut away the runners; old beds can be removed by allowing the runners to root between the rows. Plants for fall-setting may be rooted in small pots sunk in the ground.

REFORM IN PRUNING ROSES.

It has always seemed to me that much valuable time is wasted in gardens over Rose pruning. A Scotch friend lately told me that he should have no time next week for other gardening work, as he should be pruning his Roses. I recommended him to adopt my plan of pruning them with hedging shears—a plan by which two hundred or three hundred may be pruned in an afternoon, and since the adoption of which I have found them flower quite as well as when each shoot was pruned separately with a knife. He wrote to say that he had adopted my recommendation, which reminded him of the following local anecdote. A Scotch minister, fond of his garden, could never persuade his old-fashioned gardener to understand hybrid perpetuals; much time was wasted every year in pruning, but the flowering was indifferent. One year, just before pruning time, the minister's donkey got into the garden, and finding these new-fashioned Thistles to his liking, ate them off nearly to the ground. That year they flowered splendidly, and on a friend congratulating him on his fine Roses the minister drily remarked "Formerly I had a gardener who was an ass, but now I have found an ass that is a gardener."—*Cor. of Gardeners' Chronicle.*

CULTIVATING NATIVE FLOWERS.

I am delighted to read in the last number of the MAGAZINE, "Wild Gardens," on page 154, that there are some of the same taste as myself in regard to native flowers. To gather them is easy enough, but to name them correctly is another thing, not a very easy task either.

I have for years grown a nice bed of Dodecatheon Meadia in common garden soil, a magnificent sight when in full bloom; also, Lilium Canadense and Camassia esculenta. I have, furthermore, a nice border on both sides of a walk, of Tradescantia Virginica; the plants produce their splendid blue flowers all summer. I have tried to raise Cypripedium calceolus [pubescens?—ED.,] but it would not last longer than two years, after that time it would entirely disappear; the same with Liatris spicata. In out of the way corners I grow Helenium autumnale and some Asters, of which I don't know the specific

names. In my lawn there grow and flower every year the charming little Hypoxis erecta, some Alliums, and others I cannot name. People passing my place would like to know where I bought the plants, and they won't hardly believe me when I tell them that they are wild flowers.—X. E. A., *Chicago, Ill.*

AT FOUR-SCORE.

She sits in the gathering shadows,
By the porch where the Roses blow,
And her thoughts are back in the summers
That vanished long ago;
She forgets the graves on the hillside,
Forgets that she is old,
And remembers only the gladness
God gave her heart to hold.

As she sits there, under the Roses,
She turns her dim old eyes
To the road that leads up the hillside,
To the glory of sunset skies;
"They are late," she says, and listens,
With her knitting on her knee;
"It is time for the children's coming,
Where can the little ones be?"

She fancies she hears them coming;
"Ah, here at last," she cries,
And the light of a mother's welcome
Shines in her faded eyes.
"You've been gone a long time, children,
Were the berries thick, my dears?"
She asks, as gathered about her,
Each child of old appears.

She hears the merry voices
Of the dear ones that are dead;
She smooths out the shining tangles
That crown each little head.
She kisses the faces lifted
To hers, as in days of old,
And the heart of the dreaming mother
Is full of peace untold.

She listens to eager stories
Of what they saw and heard,
Of a nest in the Blackberry bushes,
And a frightened mother bird;
How JOHNNIE fell, and his berries
Were lost in weeds and moss,
And MARY was 'fraid, and dreaded
The brook they had to cross.

So, while the night comes downward,
She sits with her children there,
Forgetting the years that took them
And the snow-flakes in her hair.
The love that will last forever
Brings back the dear, the dead,
And the faithful heart of the mother
With her dreams is comforted.

Ere long she will go to the country
Where her dear ones watch and wait
For her, and I think of the meeting
There at the jasper gate.
She will feel their welcoming kisses,
And the children's father will say,
As the household is gathered in heaven,
"We're all at home, to-day!"

—EBEN E. REXFORD.

BECK'S IMPROVED SEA KALE.

Greens are fast becoming a recognized necessity in the kitchen garden, and occupy a distinctive place of their own, as they should do, although many still rely greatly upon the native plants which serve for greens, such as the Dandelion, Milkweed, &c., and on the young Beets which are thinned out of the Beet bed, for their supply. Dandelions are very good, indeed, but many a tired house-keeper would rather forego her coveted dish of greens than wander over the fields for hours in pursuit of the scattering specimens she may find, and then be obliged to devote the remainder of the day to the tedious process of looking them over. The young Beets are very good, also, but have their necessary concomitants of grit and small leaves, so that the preparation of them for cooking is a disagreeable task, and the same remark applies to many if not most of our plants commonly used for greens.

There is a variety of Beet, or Chard, which is now cultivated solely for its leaves and stalks which are used as greens, the stalks are also cooked like Asparagus, I believe, and which commends itself to every one who has even a small garden, and especially to that over-worked class of beings called "farmers' wives," to whom time is often more than money. The particular variety of Chard known as Beck's Improved Sea Kale has four good points deserving of notice. It is easily gathered, easily cleaned, quickly cooked and is delicious to the taste. It is superior to Spinach in two particulars. There is no necessity for making several sowings, as, if the outer leaves are used, new ones are produced throughout the season, keeping up a constant supply; and, furthermore, as the leaves on well grown plants almost equal in size those of the Rhubarb, it is easily seen that preparing it for cooking is a very trifling task. Then, you always have it at hand when needed, and are not obliged to fatigue yourself so thoroughly by "hunting for greens," that you are unable to eat them when they are cooked. The seed should not be sown too thickly or the plants will be crowded, and consequently will not produce such large leaves, but they should be given plenty of room. No preparation beyond that necessary to raise good Beets is required,

but, of course, if you have a good, rich soil your plants will be finer. "*Cela va sans dire.*"—L.

A GARDEN JOURNAL.

June 1. Preparing ground for more Corn. Very cold for this time of the year, scarcely safe to bed out tender plants yet.

2 and 4. Spading ground.

5. Planting *Taxus erecta* to replace those that have been killed in the mound of evergreens.

6. Bedding out plants in beds on the lawn.

7. Filling hanging baskets and vases. Sowed more Butter Beans.

8 and 9. Taking *Centaurea* and other plants from the cellar where they have been kept during winter, and planting on the lawn.

11 and 12. Bedding out Asters, Balsams, Stocks, Nasturtiums and all annuals that were sowed on the 2d of last month.

13. Planting out on the lawn a group of Japanese Maples just purchased, and received in pots.

14. Thoroughly dusting the Currant and Gooseberry bushes with insect powder to destroy the green caterpillar that is making sad destruction of the leaves.

15. Disbudding out-door Grapes.

16. Commencing to thin out all the seed beds, as Carrots, Onions, Parsnips, etc.

18 and 19. Replanting Lima Beans that have been killed with cold and wet weather. Taking out large plants from the greenhouse.

20 and 21. Thinning Grapes in the cold-grapery.

22. Used Kentish Invicta Peas, the first of the season. The seed was sown April 13th, and the intervening time is two months and nine days. They would have been nine days earlier but for the cold weather.

23. Thinning out all surplus wood and suckers from the Fig trees; also, pinching back the ends of the shoots to make the fruits put forward which are now showing themselves in the axils of the leaves.

25. Finished thinning in cold-grapery.

26. Planting *Tropæolums* that have been in pots in the cold-frame, where Pansies have been blooming all spring.

27. Shaking out and repotting plants of

Poinsettia pulcherrima, and planting them in the border.

28. Transplanting Lettuce to form heads. A time of general hoeing has commenced. The late rains have made much work, for weeds seem to grow faster than the crops.

29 and 30. Sowed Wax or Butter Beans; also, planted Stowell's Evergreen Corn, the last Corn that will be put in this season.

THOSE CALLAS.

In the January number, R. F. K., of Plumas Co., Cal., complains that Callas would not bloom, summer or winter. You truly remark that "there is no place where the Calla (*Richardia*), flourishes more freely than in most parts of California." Had R. F. K. described her locality, you could have advised her what to do. Plumas Co. is a mountain-region. Its valleys and mountains range from four thousand to ten thousand feet elevation. I have seen frost in several of its valleys during July and August, and have driven over solid snow drifts twenty feet deep with a two-horse team and wagon, in July, in crossing mountains. The Calla will live, but will not grow rank nor bloom out of doors there without shelter, owing to lack of continued warmth of air, particularly at night. I am upon a mountain nearly three thousand feet elevation, but nearer the sea, and in a more temperate region. But even here the Calla needs shelter and nursing to coax it into bloom. By planting in a kerosene can, removing it into the house in winter, by a window, our plant has now several fine blossoms, April 15th, and is a splendid, vigorous plant. Let R. F. K. do likewise, give sunshine in winter, plenty of water, and protect from frost, and she can have success.—S. HARRIS HERRING.

CHANGES CAUSED BY CLIMATE.

I see that one of your California correspondents has said that there are no Dandelions in this State. It is a mistake. There may be none in the part where she resides, the west slope of the Sierras, but on the sunny slopes of the Santa Cruz range they are growing in many places. The variety is somewhat distinctly different from its eastern relations, as are nearly or quite all of our California plants. The leaves are not so succulent; the stalk is more fibrous; the flower is flatter

and not so showy. Our Buttercups are quite as distinctly different from yours. The leaves are more Crow-foot in appearance. The more abundant sunshine with dryer air and soil combined, causes all exposed plants to have narrower and tougher stems and leaves and corollas, and increases the aromatic qualities, while the delicate sweetness and shades of coloring are diminished.—S. H. HERRING.

MELOTHRIA AND PILOGYNE.

I notice in the last number of your MAGAZINE that a correspondent has taken *Melothria pendula*, L., and *Pilogyne suavis*, SCHRAD, to be the same plant. They do look much alike, but are really very different. The former is a native of the southern United States, and has its leaves mostly five-lobed, the sterile and fertile flowers on the same plant, and the fruit oval, with a prominent stem; while the latter is a native of southern Africa, has its leaves mostly three-lobed, sterile and fertile flowers on separate plants, and the fruit globular and almost or quite without a stem, *i. e.*, sessile on the branch.—J. C. ARTHUR, *Geneva, N. Y.*

BOUND VOLUMES OF MAGAZINE.

A subscriber writes, "The bound volume for 1883 is the principal attraction upon our center table, alike to visitors and members of the household. It is the peer among modern periodicals. Its beautiful colored plates of flowers, the subject matter and elegant style of make-up are so artistic as to at once attract attention. And every one that sees it examines it all through and wants to read every article. It seems to me that all who can possibly afford to, should not only subscribe for VICK'S ILLUSTRATED MAGAZINE, but will carefully preserve the numbers for binding. Many thanks to you, Messrs. Publishers, for the pleasure you invariably give us."

TREE PÆONY IN SEVERE COLD.

Last winter was very severe in this section. The mercury stood at thirty degrees below zero at my house, last January. The top of my Tree Pæony was killed, but it has sent up shoots from the part near the ground.—I. LUCAS, *Pleasantville, Ind.*



BOBTOWN FAIR.

"Charlie," said Mr. Clinton, laying down a letter bearing an eastern post-mark, "your grandpa writes that he is coming out west, next fall, to stay with us a year, if agreeable all around."

"Gimini-gee!" exclaimed Charlie, and off he ran to announce the delightful tidings to his elder sister. In a few days after this Charlie mailed a letter of his own writing to his grandpa, on the sly; and this is what he wrote:

BOBTOWN, April 15, 18—.

MY DEAR GRANDPA: I am going to write and tell you for myself how happy your letter made us all. Papa talks so much about you that we like you very much before we have seen you. Of course, I am sorry that grandma died, but I am glad that something happened to bring you out west. And now, grandpa, we want you to be here certain sure before fair time, for every year papa says he wishes you were here to see the sights. From your affectionate grandson—C. S. CLINTON.

In due time a letter was received from grandpa in reply, which read as follows:

BOSTON, April 29, 18—.

MY DEAR GRANDSON: You cannot realize how gratified I am to receive a letter from you, which seems to have been inspired by a personal interest in my prospective visit. I see plainly I shall have to be on my good behavior, else you will be disappointed in the old man you call grandpa.

I am much interested in your fair, and hope to enjoy it with you, next fall. By the way, tell your father to announce, in the usual way, that ten dollars will be given to the boy under seventeen, who shall raise the largest Pumpkin on exhibition, and five dollars for the second largest; also, ten dollars to the girl under sixteen who shall raise for exhibition the largest and most perfect Dahlia blossom, and five dollars for the second largest. Of course, you and Cora will not care to compete for these prizes.

* * * * In conclusion, I am curious to know how far from home you were when you dated your letter to me. I see that the post-mark is Robertston, as usual, and am puzzled to know how you should happen to be writing to me from Bobtown instead of from your own home. Affectionately, your grandpa—B. F. CLINTON.

This letter was brought from the post office by papa Clinton, and thus could not be suppressed, but had to be read to

the family. The parents exchanged curious glances as the conclusion of the sentence about grandpa was read, but the final remarks produced so much laughter that Charlie was greatly confused. At length Cora exclaimed:

"Why, Charles Sumner Clinton! Whatever induced you to put that slang name in your letter? What would good old Mr. Roberts think if he knew you burlesqued his name in that way? He thinks you are——."

"Well, now, just hold on, please; you know that half the town people and all the country folks use it, and so it's forever in my ears; and I wrote the name without thinking anything about it, for I was excited with my hurry to get it off before you folks should see it."

"Yes, and much good it did you," said Cora, laughing.

Here, Mrs Clinton interfered, by saying, "Never mind, Charlie, there's no harm done, and I've no doubt your grandpa understands it perfectly, and only wanted a little sly fun out of it."

Charlie was very sensitive, and instantly his arms were about his mother's neck, while he whispered something about her always smoothing matters for him so nicely; and he didn't feel a bit too big to do it either, and it is to be hoped that he never will.

By this time Cora was inquiring what grandpa meant by Charlie and herself not caring to win the prizes, and after discussing the matter a little, they both declared that they should try with all their might to win both the prizes; and then Charlie remarked that he would rather exhibit a Melon than a Pumpkin. But Cora did not wait to hear the reasons given why grandpa had chosen wisely, but hurried to the cellar to see what condition the Dahlia tubers were in, and

while handling them over was saying to them aloud, "The idea of caring! when you know what a state of mind I'm always in because of my 'money allowance' never holding out, as some folks seem to think it ought to!"

That evening Charlie went early to his room, and here is the result.

ROBERTSTON, May 7, 18—.

MY DEAR GRANDPA: Your letter came to-day, and I cannot sleep until I write that I was at home, in this very room, when I answered your letter. You see, Bobtown is only a nick-name that some one thought of after the place was named for good old Mr. Roberts, because of his having once owned the ground; and papa says there is a twang to the name that just suits some of the people here. But, grandpa, there are people who come to these fairs that hail from settlements really called 'Possum Run, Hard Scrabble, Nip-and-Tuck, Henpeck, and Pitch-in. There is a post-office at Pitch-in, called by that name. Perhaps that was the war-cry at the "raising" of the first log cabin there. Affectionately, your grandson—C. S. CLINTON.

Bobtown fair was not only the pride of its own county, but was admitted by the adjoining counties to excel all others by reason of its enterprising management, as also for the great number of people regularly in attendance, and this, too, when the nearest railway was twelve miles distant. No small proportion of these people came from comfortable log cabins, either single (one room and a loft,) or "double," or perhaps, two stories, and who considered this occasion the great event of the year. They were a well-to-do-people, their "clearings" having become farms, and themselves looking well-fed, robust and happy. Added to this they were highly social, jocular, warm-hearted and hospitable. Some few, coming from a distance, were in covered wagons, with all the equipments of camping out, unless they expected to be entertained by friends in the village. The thrifty women in these wagons were engaged while traveling in doing the family knitting, or braiding into floor mats clean, bright-colored fabrics already cut in strips. These mats usually lay in front of a bureau, which occupied the space between the foot ends of two bedsteads which stood in the back part of a spacious room, and from whence a clean rag carpet covered the floor mid-way to the kitchen end of the room. Sometimes these beds were covered with patch-work quilts, composed of a thousand pieces, or even more when competition ran high at the fair.

But we must return to our friends. As time sped on, Cora might often have been seen in a far corner of the garden, where soil, sunlight and seclusion favored the prosperity of her pet Dahlias. The tubers had been labelled "yellow," "white," "pink" and "crimson." They were each of different stages of growth, so that it would seem that some one of them ought to be in its prime at the opening of the fair. It was evident that the side branches had been freely pruned away to concentrate, if possible, the strength of the plant in the few buds that remained. On two of the plants there was but one each.

Charlie tried to manage his vines on the same principle, and many were the trips made to each others Eldorado. And O, such discussions as there were between the two. Such wise remarks. And then such appeals for papa's opinion, until that gentleman mentally decided that his father had certainly known what he was about, for never would such knowledge of soil and culture have been gained in one season without unusual inspiration. He visited the Dahlias and vines himself, and told his children that he was afraid that they might win all the prizes.

"Afraid?" said Charlie.

"Yes."

"Well, to tell the truth," said Cora, "I've been thinking about that very thing myself; and what if we were to get all the premiums, how could it be managed?"

"We'll trust that to grandpa; this is his affair, not mine. The part that interests me is to know that my daughter is unselfish and has a clear sense of justice. "Charlie, have you nothing to say?"

"I had not thought of it before, but I see now that it would never do for grandpa's premium money to all come back to this family. I'd rather not have any. But, perhaps, there's no danger."

"Hurrah! for my boy," said Mr. Clinton, "I see now there is going to be no trouble on this point. I am very proud of both of you. Grandpa will soon be here now, and will make everything right." And so he did when the crisis came.

But he came first, and was received with great rejoicings. When the first intensity of the "visiting" had abated, Cora and Charlie withdrew into private caucus

and decided that the new comer was going to prove just their ideal of a grandpa. The next day he spied around until he found the Pumpkins. Then he gave a little whoop and tossed his hat up, like a school boy. Charlie and Cora were on the alert, and it seemed to them like a victory already won.

On the next day but one would be the opening of the fair. Numbers of people came the night before and slept in and under their wagons, with perfect comfort to themselves.

When the Clintons got on the ground, a large concourse of people had collected. The fine horses, cattle, sheep, poultry, and long-snouted hogs of those days were all in their allotted compartments. The "stalls" circling the inside wall of the great rotunda were fast filling up with sample-butter, bread, jellies and all articles of domestic manufacture. Following the gravel walk, underneath the outside openings of these stalls, the people saw everything in their rounds, without easy facility for handling. When the flower stalls were reached everybody, as usual, was enchanted.

The committee on cut flowers would not meet until two o'clock, so grandpa Clinton had advised Cora to leave her Dahlias until they came back from dinner, at which time there was a great increase in the Dahlia stall, and most beautiful was the sight. Grandpa looked long and closely and then told Cora she might bring her second best ones in their moss baskets, which she cheerfully did, for it was all understood between them, and he placed them for her. Charlie's largest Pumpkin was not allowed on exhibition, but his second best won the first-class premium. When a committee man announced the awards for Dahlias, Cora's name was not mentioned. He went on to say, however, that there had just been brought in a very large, fine Dahlia, quite superior to any on exhibition; also, an enormous Pumpkin, both of which were to be put up immediately for sale to the highest bidder, the proceeds to be placed in the hands of the Treasurer until such time as a committee of ladies could be appointed to receive instructions as to its benevolent disposal.

Well, the people bid until the Pumpkin was struck off at seventy-five dollars, and the Dahlia for twenty-five dollars.

Then came stalwart cries of "Who raised them?" "Give us their names!" But no, the names were not to be given. And so the air was rife with surmises during the rest of the fair. But Charlie and Cora were both satisfied, and when finally the fair became something of the past, Cora found a ten dollar gold piece in her purse, which her mother had been told to put there. When once grandpa was asked at the fair how the people appeared to him, as to character, he answered, "A fine, sturdy people of strong common sense and love of fun and nature." Again he said, "The next generation will show what this one is."

When Cora asked him to close his eyes and tell her what the medley of the gay colored costumes of the women at the fair made him think of, he said, "the colors in a kaleidoscope." He did not know of "crazy quilts."—AUNT MARJORIE.

WILD GARDENS

II.

For growing about porches and verandas and over fences, old stumps and rocks, there is no finer vine than the wild Clematis, or Virgin's Bower. It bears beautiful, airy flowers in great profusion through the summer, and these are succeeded by seeds enclosed in feathery, silky tufts, which are almost as pleasing as the flowers are. Another beautiful vine is the Bittersweet. This bears berries of a rich red, each berry enclosed in a shell of orange, which bursts and turns back, disclosing the fruit within. These clusters are as beautiful as many flowers, and cling to the branches through the winter, thus making the vine ornamental at a season when we are used to seeing only bare branches, which, though beautiful, are too common to be noticeable. The Virginia Creeper, *Ampelopsis quinquefolia*, is as beautiful a vine as you can find anywhere. It has fine foliage, grows to a great height, holding to anything with which it comes in contact by its powerful little fingers, which act on the same principle as the "suckers" we used to make at school, out of a piece of leather, to lift small stones with, when they were wet and applied to a flat surface. It soon covers a wall, a tree, stump or rock with its dense leaves. In fall, these leaves become a most brilliant crimson. You will find this plant grow-

ing up Elms along the river banks, and in September, at a little distance, its long festoons of gorgeously-colored foliage will flame out like flowers against the dark green of the Elm. The wild Grape is another charming vine, especially so in spring, because of the delicious fragrance of its feathery flowers.

The Sumach is a fine shrub for any garden; fine in summer, covered with green, and perfectly gorgeous later in the season when the green gives place to scarlet, brown and gold. Its beauty does not pass wholly away when its leaves fall, for it bears great clusters of crimson berries, which are shown off most effectually against a background of evergreen.

THE SHIP OF THE DESERT.

The Saxon word, *gamol*, or *gamele*, means, an old man, a Camel, and Camel is the name by which we hear these strange "Ships of the Desert" oftenest called. They are animals of Asia and Africa, in which countries there are immense tracts of sand stretching mile after mile, as far as the eye can reach.

The manner of traveling over these arid wastes is by means of the Camel, and strange, uncouth looking creatures they are. Their heads are small, with prominent eyes, which are provided with long lashes to shield them from the scorching rays of the sun, and the nostrils are so constructed that they can be



I have not space to describe, or even to give a list of, a tenth part of the most common shrubs and plants we have growing at the north which are well worth cultivating in our home garden. If you set out to make a collection you will find them. I know where they are, and so may you if you will search. It is strange how nature takes her friends into her confidence. Before you begin to study her ways you will pass many beautiful things and never dream of their existence. Begin to search for them out of love for the beauty they are part of, and nature reveals them to you, here, there, everywhere, and seems to say, "I knew where they were, all the time, but you did not; I only show my treasures to those who will try to appreciate them." And the more truly appreciative you are, the more she will show you.—EBEN E. REXFORD, *Shiocton, Wis.*

closed at pleasure, to keep from them the sand, which blows in clouds. It is the only animal which can find subsistence on the desert, and it manages to satisfy its hunger on the scant, scrubby foliage which it may once in a while chance across, and at the end of a day's long, hard journey a few Beans or Dates suffice for its evening meal. These living Ships of the Desert are as specially adapted to travel the sea of sand as the ships of the great ocean are to ride over its waters. The Bactrian Camel has two humps on its back, the Arabian but one, and these humps are masses of fat which act as nourishment for the Camel when there is lack of food. When the animals are in a well-fed condition, the humps become full and large, but when food is scarce it diminishes greatly in size.

One species of the Arabian Camel, the Dromedary, is famed for its exceed-

ing swiftness, and can travel over a hundred miles a day with a person upon its back; but as its pace is a steady, jolting motion it is far from pleasant for the rider.

Camels can live many days without water, which is another reason of their being particularly adapted to travel over the desert, for in their stomachs are the most wonderfully constructed reservoirs, and in these they carry a supply of water on which to depend when none can be found.

Often when a caravan is journeying over the desert, and thirst becomes intolerable, with no prospect of being able to find water with which to quench it, the travelers will kill a Camel in order to save their lives with the supply of water which can be obtained from its stomach.

To prevent the feet sinking into the burning sand they are furnished beneath with elastic pads or cushions

Camels are usually patient and docile, and capable of carrying exceedingly heavy burdens. They always kneel while being ladened, or when their riders are to mount their backs. When a Camel thinks that it is being more heavily ladened than is just, it will give a peculiar cry, as if to beseech pity and forbearance.

Camels may be said to constitute the wealth of the Arab, for without them his merchandise would be useless, as they are his only mode of transporting his goods to places where they can be sold. Thus the name, "Ships of the Desert," seems truly an appropriate title to give them, for they, like the ships of the sea, are the means of conveying from place to place the passengers and freight. Sometimes a Camel and its rider will disappear never to be heard of again, and it is supposed that the Camel has been appropriated by some wandering Bedouins, and its rider ruthlessly slain, or that both may have been buried in the sand during a simoon, which is one of the terrific sand and wind storms of the desert.

At night, travelers make their Camels serve as pillows, and often to act as a protection from the wind, as they place the Camel between themselves and the wind. Thus we see that these vast trackless wastes of sand would be impassable were it not for these "Ships of the Desert."—M. E. WHITTEMORE, *New York*.

THE PARROT AND THE FISH.

The story of the Parrot and the fish given in the last number of the MAGAZINE, I have heard in a manner somewhat different, it is this: A cook kept a pot of pickled cockles which decreased mysteriously every day; coming suddenly into the kitchen, one day, she discovered the Parrot eating from the jar. In her wrath she seized a ladle full of hot fat and threw it at the bird, exclaiming, "There! you've been stealing pickled cockles, have you?" The hot fat caused the feathers on the bird's head to fall out and he became quite bare-headed. Like most Parrots, he was fond of looking in a mirror, and when he saw his disfigurement he was greatly dispirited, and though previously a great talker, he never after spoke a word for a year. One day a bald-headed gentleman was sitting in the kitchen, and Polly climbed to the back of his chair, and after solemnly examining the man's bald head, with evident thoughtfulness, suddenly exclaimed: "There! you've been stealing pickled cockles, have you?"—SUBSCRIBER.

LAYERING A ROSE-BUSH.

A Rose-bush may be layered with little trouble, and it will be found an interesting recreation to increase one's plants of desirable varieties in this manner; skill will be acquired by experience, and in a short time every attempt will result successfully. Make a narrow trench three or four inches deep where a good well-grown shoot can be bent into it. After blooming, in June, cut a slit in the shoot selected at the point where it will touch the soil, press some soil into the cut, bend the cane down to the bottom of the trench and fasten it there with some pegs, and cover it well with soil. By fall it will be a rooted plant and can be cut away and transplanted.

HARPER'S YOUNG PEOPLE.

On the first of this month the publishers of *Harper's Young People* advance the price to two dollars a year. Hereafter, those desiring *Harper's Young People* and our MAGAZINE can have them both sent a year for two dollars and fifty cents, by remitting to us this amount with the order.